DOCUMENT RESUME

ED 393 392 HE 029 068

TITLE State Funding of Medical Education, RR-91-05.
INSTITUTION Ohio State Legislative Office of Education Oversight, Columbus.
PUB DATE Oct 91
NOTE 77p.
PUB TYPE Reports - Evaluative/Feasibility (142)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Career Choice; Enrollment Influences; Financial Support; Higher Education; *Medical Education; Medical Schools; Physicians; Professional Education; *Specialization; State Aid; State Programs; Student Financial Aid
IDENTIFIERS *Ohio

ABSTRACT

This study examined line item funding for medical education in Ohio, both for general-purpose subsidies and for special programs intended to alleviate shortages of physicians in certain medical specialties and geographic locations. Spending by the State for all medical education in 1991 totaled $140.1 million. Four specific programs were funded: primary care, family practice, Area Health Education Centers (AHEC), and geriatric medicine. Information was gathered from existing literature, site visits to all seven Ohio medical schools, interviews with State college and hospital administrators, interviews with out-of-state representatives and experts from associations and providers, and general information from other states. Findings suggest that the State needs better information and accountability, clearer program direction, and more broadly based solutions to problems of supply and distribution of physicians. Recommendations include development of an overall policy on physician supply needs in relationship to enrollment policies; examination of the AHEC program's impact on physician supply and location; design of a uniform, statewide cost-allocation system for medical schools; and enactment of statutory language for all programs. Appendixes include a review of certain medical schools, a report on Ohio appropriations for physician training, excerpts from the Ohio Revised Code, a list of shortage areas for health professionals, and responses to the report. (Author/NAV)

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STATE FUNDING OF MEDICAL EDUCATION

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October 1991

STATE FUNDING OF MEDICAL EDUCATION

RR-91-05

SUMMARY

This Research Report examines line item funding for medical education within the Board of Regents' budget. The report describes how Ohio funds physician training, and examines specific programs intended to alleviate shortages of physicians in certain medical specialties and geographic locations.

Ohio has seven medical schools, with a total enrollment of nearly 4,000. An additional 4,000 physicians are in training programs beyond their medical degrees.

The spending by the state for training physicians totaled $140.1 million for fiscal year 1991. General-purpose and line item funds are appropriated to medical schools to support the training of physicians, as follows:

General-purpose subsidies

* Instructional Subsidies
* Clinical Teaching Subsidies
* Case Western Reserve University School of Medicine

Targeted programs

* Family Practice
* Primary Care Residencies
* Area Health Education Center (AHEC) Program Support
* Geriatric Medicine.

This is a report of the Legislative Office of Education Oversight (LOEO) to the Legislative Committee on Education Oversight. ***Conclusions and recommendations in this report are those of the LOEO staff and do not necessarily reflect the views of the Committee or any of its members.***

In preparing this report, LOEO staff reviewed existing literature. During site visits to all seven medical schools in Ohio, we interviewed college and hospital administrators and faculty. LOEO surveyed other states, and spoke to representatives and experts from a variety of associations and providers.

PROCESS OF MEDICAL EDUCATION

To earn a doctor of medicine (MD) degree or a doctor of osteopathy (DO) degree, medical students usually study for four years, and successfully complete the first two parts of a national examination. The first two years are classroom based; the last two

involve more hands-on clinical experience. After receiving the degree, a graduate serves a year as an intern. After completing this year, and passing the third part of the national examination, the physician can be licensed by the State Medical Board.

A residency, several subsequent years of graduate medical education, is required to receive certification in a specialty. A fellowship, further supervised training, leads to subspecialty certification.

No one knows what the costs of training a physician are. The explanation for this is twofold.

First, the complexity of medical education activities stands in the way of developing a cost allocation system. Any one clinical experience might contribute simultaneously to patient care, undergraduate medical education, and graduate medical education.

Second, medical schools have no fiscal incentive to develop a detailed cost allocation system. Representatives of medical schools and hospitals, however, told LOEO staff that they would be able to devise a uniform method of accounting for their costs if instructed to do so.

Although medical education funds are eight percent of the state's postsecondary budget, there is no clear direction for use of these funds, nor is much reporting required of medical schools to obtain them.

Until 1989, Clinical Teaching Subsidy reports were submitted annually to the Board of Regents. The reporting requirement was deleted because the Regents staff found no one used the reports. Annual reports still must be submitted for targeted program funding, except for Area Health Education Center (AHEC).

An analysis of AHEC program activities was conducted, but no formal evaluations or studies of the effects of targeted programs or clinical teaching subsidies have been required or conducted. In spite of statutory requirements that the Board of Regents "make studies of state policy in the field of higher education...review the appropriation requests" and make recommendations, Regents staff do not evaluate or asses the impact or effectiveness of medical education programs.

GENERAL-PURPOSE SUBSIDIES FOR MEDICAL EDUCATION

Three types of general-purpose state subsidies fund medical schools: the instructional subsidy, public school clinical teaching subsidies, and a special subsidy for the Case Western Reserve University School of Medicine. These subsidies may be spent as individual medical colleges choose.

Instructional subsidies distribute unrestricted state appropriations to all public institutions of postsecondary education. Amounts of these subsidies are based on program enrollments and expenditures. Instructional subsidies for the six public medical schools are calculated using only one school's expenditures.

Clinical teaching subsidies are intended to support education and research at clinical education facilities. Original allocations were negotiated among medical schools and legislative leaders. Subsequent requests, although adjusted for inflation, maintained the same relative shares for each medical school.

Case Western Reserve University's (CWRU) School of Medicine, a private school, receives a subsidy in return for reserving 60 percent of its first-year medical school class for Ohio students. There are few restrictions on how CWRU must spend this state money.

Since 1985, the General Assembly has given public medical schools a financial incentive to reduce their entering class sizes, yet maintained assistance to CWRU to increase its enrollment of Ohio students.

TARGETED PROGRAM FUNDING

Four specific programs are funded. Three are designed to influence the supply and distribution of primary care physicians – Primary Care Residencies, Family Practice, and AHEC. The fourth aims to expand medical students' knowledge of geriatric medicine.

Primary care physicians provide general and preventive care for common health problems. Primary care physicians usually practice general medicine in the following fields: internal medicine, pediatrics, obstetrics and gynecology, or family practice medicine. (Family practice physicians are trained to provide general medical care to all family members.)

Family Practice funding was originally requested in 1974 to help establish state-mandated departments of family practice, and since then the Board of Regents has continued to increase funding requests. No statutory language describes the purpose or specific uses of Primary Care Residencies appropriations. Funds are not used exclusively for residencies, but support activities for both undergraduate medical students and graduate residents.

LOEO found that medical schools refer to Primary Care Residency and Family Practice funding almost interchangeably. Medical school and Regents administrators frequently discussed the two as if they were one program.

Although there has been an increase in the number of primary care residencies in Ohio since 1977, supply and distribution problems remain. Area Health Education Center (AHEC), a recipient of targeted program funds, attempts to alleviate the uneven distribution of health professionals by linking underserved communities with health-care training programs.

AHEC may contribute to an increase in physicians in underserved areas. Another strategy that appears to be effective on both the federal and state level, is direct incentives to students and graduates, such as scholarships with a service payback requirement.

Geriatric Medicine supports the state-mandated enhanced curricula and geriatric offices at medical schools. This funding is the state's attempt to ensure that physicians expand their understanding of the aging population's health needs. Because there are no outcome measures, it is not clear that this state support helps medical schools produce physicians more able to treat older people.

CONCLUSIONS AND RECOMMENDATIONS

To get the maximum benefit from state funding for medical education, the General Assembly needs:

* Better information and accountability;
* Clearer program direction; and
* More broadly based solutions to address the issues related to supply and distribution of physicians throughout Ohio.

LOEO RECOMMENDS:

* An overall policy regarding physician supply needs related to enrollment polices be developed;

* Outcome data be collected and trends in retention and migration be analyzed;

* The impact of the AHEC program on physician supply and locations be examined;

* A systematic evaluation of the effectiveness of the Geriatric Medicine program be conducted;

* A uniform statewide cost-allocation system for medical school be designed;

* Statutory language for all programs be enacted; and

* The creation of a pilot project to establish financial incentives to individuals, not just medical schools.

TABLE OF CONTENTS

I - INTRODUCTION 1
OVERVIEW 1
Ohio's medical colleges 1
State financing of medical education 2
Scope and methods 4
Report organization 5

II - PROCESS OF MEDICAL EDUCATION 6
BECOMING A PHYSICIAN IN OHIO 6
COST OF MEDICAL EDUCATION 8
Ohio estimates 9
Cost categories 9
Expenditures and revenues are not costs 11
Need for cost allocation system 12
ACCOUNTABILITY 12
Lack of reporting 13
Lack of evaluation 14
Lack of competitive funding 15

III - GENERAL-PURPOSE SUBSIDIES FOR MEDICAL EDUCATION 16
INSTRUCTIONAL SUBSIDIES 16
Enrollment reduction incentive 18
CLINICAL TEACHING SUBSIDIES 18
Uses of clinical teaching subsidy 19
CASE WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE 19
Intent of subsidy 19
Use of the subsidy 20
RETAINING MEDICAL SCHOOL GRADUATES IN OHIO 20

IV - TARGETED PROGRAM FUNDING FOR MEDICAL EDUCATION 23
SUPPLY OF PRIMARY CARE PHYSICIANS IN OHIO 23
Family Practice appropriation 23
Primary Care Residencies appropriation 24
Adequacy of supply 25
Effectiveness of Family Practice and Primary Care Residencies funding 26
Continuing need for primary care physicians 27
DISTRIBUTION OF PHYSICIANS WITHIN OHIO 28
Ohio's response 30
Area Health Education Centers Program Support appropriation 30
Adequacy of geographic distribution 31

IV - TARGETED PROGRAM FUNDING ... (CONTINUED)
Effectiveness of AHEC funding 31
Continuing need for a better distribution of physicians 33
Alternative approaches 33
DEMAND FOR GERIATRIC MEDICINE TRAINING 35
Geriatric Medicine appropriation 35
Effectiveness of Geriatric Medicine funding 36

V - CONCLUSIONS AND RECOMMENDATIONS 37
Better information and accountability 37
Clearer policies and program directions 40
More broadly based solutions 41

APPENDIX A
OHIO'S APPROPRIATIONS FOR PHYSICIAN TRAINING 42

APPENDIX B
WRIGHT STATE UNIVERSITY'S ELLIS INSTITUTE 43

APPENDIX C
OHIO COLLEGE OF PODIATRIC MEDICINE 44

APPENDIX D
THE OHIO STATE UNIVERSITY CANCER HOSPITAL 45

APPENDIX E
EXCERPTS FROM OHIO REVISED CODE SECTION 3333.04 46

APPENDIX F
HEALTH PROFESSIONAL SHORTAGE AREA (HPSA) 47

RESPONSES FROM OHIO BOARD OF REGENTS, OHIO DEPARTMENT OF HEALTH, AND LOEO NOTES

CHAPTER I
INTRODUCTION

The Legislative Office of Education Oversight (LOEO) serves as staff to the Legislative Committee on Education Oversight. Created by the Ohio General Assembly in 1989, the Office studies education-related activities funded wholly or in part by the state of Ohio. This Research Report examines how state funds are used to provide for the costs of training physicians, and examines programs intended to alleviate shortages in medical specialty areas and geographic locations in Ohio.

This is a report of the LOEO to the Legislative Committee on Education Oversight. ***Conclusions and recommendations in this report are those of the LOEO and do not necessarily reflect the view of the Committee or any of its members.***

OVERVIEW

Nearly every state supports at least one medical school. States fund physician training for two major reasons. First, as a matter of education policy, the funding allows a state's citizens to pursue careers in medicine. This objective can be met if medical schools are affordable, geographically convenient, and of adequate quality.

Second, funding for medical schools also supports health care by helping to ensure a sufficient supply of well-trained physicians. One way that this objective can be met is if medical schools are of adequate quality, and if the state retains enough medical school graduates within its boundaries to meet its need for physicians. For both education and health care purposes, many states offer financial support to medical schools as well as incentive programs to individual physicians or medical students.

The two objectives, education and health care, overlap to some extent in practice and often are not explicitly stated. For example, state governments may expect that, in return for subsidizing medical schools, a certain number of graduates will stay in the state to set up practices.

Ohio's medical colleges

Ohio has seven of the 142 licensed medical schools in the United States:

Associated with public universities
* Ohio State University College of Medicine (established 1907),
* Ohio University College of Osteopathic Medicine (established 1975),
* University of Cincinnati College of Medicine (established 1819), and
* Wright State University School of Medicine (established 1973);

Free-standing public medical colleges

* Medical College of Ohio at Toledo (established 1964) and
* Northeastern Ohio Universities College of Medicine (established 1973).

Associated with a private university

* Case Western Reserve University School of Medicine (established 1843).

The total enrollment of medical students in Ohio's medical colleges is nearly 4,000. An additional 4,000 individuals are medical interns, residents, and fellows in training programs beyond their medical degrees.

Six of Ohio's medical colleges provide education and training toward a doctor of medicine (MD) degree. Ohio University offers a doctor of osteopathy (DO) degree. It is one of 15 in the United States and the only one of its kind in Ohio. Although MDs and DOs have a somewhat different orientation to education and training, both may take the same national exam and are licensed in the same way. Both MDs and DOs may receive further training to pursue a specialty or subspecialty.

Northeastern Ohio Universities College of Medicine is operated jointly by the University of Akron, Kent State University, and Youngstown State University. It is one of only a few schools in the nation where students enter after high school and spend six years in a combination of a baccalaureate curriculum and a medical curriculum. A four year post-baccalaureate medical curriculum is typical for all other schools.

State financing of medical education

Ohio's seven medical colleges receive state appropriations primarily through the line items described below. For fiscal year 1991, these schools received a total of $140.1 million through these line items.

There are other indirect means by which medical education is funded through the state, such as Medicaid's estimated annual $93 million expenditure (of which the state's share is $37.2 million) to help subsidize residency training programs in hospitals. However, this report will discuss the following line items, which are the major sources of state funding for medical education in the Board of Regents budget:

State Funding for Medical Education

General-purpose Subsidies	FY 1991 Appropriation (dollars in millions)
* Instructional Subsidies	$ 73.1
* Clinical Teaching Subsidies	47.4
* Case Western Reserve University School of Medicine	5.4
Targeted Program Funding	
* Family Practice	$ 7.4
* Primary Care Residencies	3.6
* Area Health Education Center (AHEC) Program Support	1.9
* Geriatric Medicine	1.3
Total	$140.1

Appendix A provides a history of state funding for these programs. The line items' purposes are:

Instructional Subsidies and Clinical Teaching Subsidies are general-purpose subsidies distributed to each public medical school or university to support the costs of medical education.

Case Western Reserve University (CWRU) School of Medicine is a general-purpose subsidy to the only private medical college. This allocation is to encourage the admission of Ohio applicants in return for state support.

Family Practice and Primary Care Residencies line items are intended to encourage medical students to pursue careers in Ohio in the "primary care" fields of family medicine, general internal medicine, or general pediatrics.

Area Health Education Center (AHEC) Program Support is to encourage health care professionals--especially physicians--to practice in underserved rural and inner city areas of the state, decentralize education for health care professionals, and promote primary care.

Geriatric Medicine funding is intended to expand physicians' knowledge of the health care needs of the aging population.

Scope and methods

LOEO limited its study to the line items listed above because they are most directly related to the education of physicians. We omitted dental and veterinary subsidies, and research in child abuse and long-term care line items because they are not directly related to physician education.

Appendices B through D provide descriptions of state funding for related programs including earmarking from the Wright State University clinical teaching subsidy for the Ellis Institute (a training center of the School of Professional Psychology that trains psychologists rather than physicians); the Ohio College of Podiatric Medicine; and the Ohio State University Cancer Hospital.

LOEO's research was directed to the general issue of how state funds are used to fund the costs of physician education and how medical schools support the health care goal of a sufficient supply of physicians. Two specific questions guided our study:

1. What are the medical education costs subsidized by the state?

2. Are there changes in the numbers of physicians in both critical specialty areas and geographic regions as a result of Ohio's targeted funding programs?

Our review does not attempt to evaluate any one medical school, nor does LOEO measure the quality of medical education programs in Ohio. We are generally focusing on the purpose of funding, not on the quality of programs. For example, determining whether the programs encourage physicians to practice in underserved areas does not address whether those physicians' medical education was of high quality.

In conducting the study, LOEO reviewed existing literature and research from Ohio and other states, and visited all seven medical schools in Ohio. LOEO staff interviewed college and hospital administrators, faculty, department chairpersons, and program coordinators during the site visits.

LOEO surveyed other states and spoke to representatives of professional associations, non-physician academic departments, state and national experts, hospital administrators, and primary care and Medicaid providers. LOEO staff also spoke with

the Ohio Board of Regents staff, and members of state and federal legislative and executive branches.

LOEO appreciates the assistance we received from the medical schools, the Ohio Board of Regents, and the Ohio Department of Health, especially the Division of Primary Care. We are especially grateful to Dr. Tennyson Williams for the statistics he provided.

Report organization

Chapter II introduces the key processes and terms in medical education. A description of how a person becomes a physician in Ohio is provided, followed by a discussion of costs associated with medical education. A discussion of accountability measures for medical schools completes the chapter.

Chapter III describes the purpose and use of three types of general-purpose state subsidies distributed to Ohio medical schools. These include the instructional subsidy, public school clinical teaching subsidies, and the special subsidy for Case Western Reserve University School of Medicine.

Chapter IV focuses on four targeted programs designed to influence the supply and distribution of primary care physicians, as well as to expand medical students' knowledge of geriatric medicine. These targeted programs, which are in the Board of Regents' budget, include: Family Practice, Primary Care Residencies, Area Health Education Centers, and Geriatric Medicine.

Conclusions and recommendations are found in Chapter V.

CHAPTER II
PROCESS OF MEDICAL EDUCATION

The primary purpose of Ohio's seven medical schools is educating future physicians. This chapter describes three aspects involved in the process of educating new physicians: (1) the typical route to becoming a physician; (2) the costs related to the training of future physicians; and (3) whether accountability measures are used to determine how state policy objectives are achieved through the process of medical education.

BECOMING A PHYSICIAN IN OHIO

Although there are variations, the following is a description of the typical route to becoming a physician in Ohio. Exhibit 1 provides an overview of the process. This report uses the terms **medical school** and **medical college** to refer to a postsecondary institution offering an MD or a DO degree. **Medical students** are individuals who have completed at least a bachelor's degree and are in a medical school for three to four years pursuing an MD or a DO degree. This three- to four-year period of time is called **undergraduate medical education**.

EXHIBIT 1

PROCESS OF MEDICAL EDUCATION		
Training program	**Typical length**	**Degree/certification**
Undergraduate Medical Education	4 years	MD or DO degree
Graduate Medical Education:		
* internship	1 year or 1st year of residency	eligible to be licensed physician
* residency	3-5 years	certified with specialty
* fellowship	2-3 years	certified with subspecialty

The first two years of undergraduate medical education involve intensive classroom work such as basic science lectures, labs, and small group discussions. Part I of a three-part national examination is given at the end of a student's second year of medical school.

The last two years of medical school are devoted to more hands-on clinical education. This education is largely based on observation as well as direct contact with patients. The specific goals are to enable the student to establish desirable physician-patient relationships, document medical histories, conduct physical examinations, and recognize familiar disease patterns.

The third year is the most intensive, with required rotations known as **clerkships**, varying in length from two to twelve weeks. Students are usually assigned to a hospital, work in teams of two or three, and are supervised while given a number of patient cases each week. (Some schools reported offering a relatively new introductory course in a clinic or hospital called **preclerkships**.) Individual supervision of clerkships is primarily provided by a medical resident, and overall supervision and teaching are provided by a senior practicing physician. These physicians can be volunteers or paid faculty. A number of them also conduct classroom instruction during the second year of the medical school curriculum. **Preceptors** are physicians that supervise or teach at clinical sites removed from the academic center.

During the fourth year, students choose clinical experiences from varied specialties. During this year, a student may select a clinical setting such as a hospital, physician's office, or research laboratory. This last year of medical school permits students to choose and personalize their experiences as they experiment with career options. At the beginning of a student's fourth year of medical school, Part II of the national examination is given.

After receiving the MD or DO degree, a physician enters **graduate medical education**. Their first year of training after graduation from a medical school is often called an **internship**. Graduates with a DO degree do a general rotation as **interns**, while MD graduates are often called **interns** during the first year of their residency. After this year, an individual takes Part III of the national examination and can be licensed as a physician by the State Medical Board.

Subsequent years of graduate medical education are either in a residency or fellowship. A medical resident or **resident** is an individual in an approved residency program, usual located at a hospital. This training is required to receive certification in a specialty with one of 24 recognized specialty boards. To become a pediatrician or

family practice physician, for example, an individual must have three years of post-graduate residency training, followed by an examination. Obstetricians and gynecologists are required to complete four years of residency prior to their examination for certification. A general surgeon needs five years of supervised residency training to take the examination and receive certification.

After the completion of a residency, a **fellowship** is continued supervised training to achieve a **subspecialty**. Fellowships include both clinical work and research, requiring an additional two to three years of training. For example, to become a plastic surgeon, a five-year residency in general surgery is needed, followed by an additional two-year fellowship.

Licenses must be renewed every two years and specialization examinations must be retaken every six or seven years. Physicians licensed in Ohio must complete 100 hours of continuing medical education (CME) every two years.

COST OF MEDICAL EDUCATION

Ohio's method of funding medical education assumes that the amount the state appropriates is somehow related to the costs of training a physician. However, no one knows what these costs actually are. Neither Regents staff, nor any of the medical schools, nor the teaching hospitals know how much it costs for a medical student to become a physician.

This situation is not unique to Ohio. National and state-level studies have been unable to arrive at figures agreed upon by all interested parties. Differences in accounting systems are the main problem, said a representative of the American Association of Medical Colleges. The Southern Regional Education Board, an interstate education compact initiated by 15 states' governors, concluded in a recent report that "even the medical school administrators have no clear notion of what their true costs are."

The explanation for not knowing the costs of medical education is twofold. First, medical education includes many kinds of activities, and developing a cost accounting system to organize and categorize each one would be complex. This is especially true of clinical experiences. An example developed by Northeastern Ohio Universities College of Medicine illustrates the argument:

> A young woman. . . giving birth to her first child. . . develops life threatening complications. The resident who had been delivering the baby

calls in a faculty member who is a high-risk obstetrician. The faculty member completes the delivery with the resident assisting, an intern second-assisting, and a medical student observing. The following are the outcomes. . . :

1. a healthy baby has been born;
2. a young mother's life has been saved;
3. a resident has had a lesson in high-risk obstetrics;
4. an intern has learned more about assisting at childbirth; and
5. a medical student has learned more about obstetrics/gynecology.

The total amount of money expended for this event covered patient care, undergraduate medical education, and graduate medical education. Therefore, it is argued that identifying any of these expenditures as "costs" of any single activity is arbitrary.

Second, funding sources have not attempted to calculate the costs of medical education, but have kept track only of the expenditures of medical schools. Because their expenditures are increasing, medical schools and affiliated hospitals ask for increased funding. They have no fiscal incentive to develop a detailed cost accounting system. One hospital expert said, "Why spend all that money [on a cost accounting system] just to find out you're not getting paid?" Another noted, "There's no check at the end of the tunnel."

Ohio estimates

LOEO asked the seven Ohio medical schools to estimate their annual cost to educate a student. Five provided some estimates for the current year; they ranged from $23,000 to $52,000. LOEO calculated the upper ranges of $54,000 and $65,000 for the two schools that did not provide estimates.

The problem with these estimates, however, is that no uniform method for allocating costs was used. Although all the medical school representatives said they are willing to develop a uniform reporting system of their costs, estimates now vary widely and are not comparable.

Cost categories

As suggested earlier, medical schools and teaching hospitals incur costs for many functions, including:

* undergraduate medical education (medical students);
* graduate medical education (interns, residents, fellows);
* medical care of patients;
* research;
* public services, such as health information; and
* school or hospital administration and overhead.

Undergraduate medical education often represents only a small portion of total medical school expenditures. According to a recent study by the Wisconsin legislature, the cost of undergraduate medical education represents less than 15 percent of total spending at each of Wisconsin's two medical schools.

Graduate medical education traditionally has been supported primarily by hospitals, although medical schools often share the cost of medical education at teaching hospitals. A number of Ohio medical schools reported that at least one half of their clinical subsidy is given to their associated teaching hospitals.

The funding of residents through hospitals further illustrates how health care and education costs blend together, since residents are being trained while providing medical care and treatment services for which reimbursement is received. For this reason and others, the national Council on Graduate Medical Education, Ohio Regents staff, and others increasingly raise the question of the extent to which health care costs are being funded as medical education costs.

Patient care was estimated by the Wisconsin study as accounting for 31 percent of UW-Medical School's expenditures and 55 percent of those of the Medical College of Wisconsin. The expenditures include clinical services that medical school faculty provide at affiliated hospitals or clinics.

Most teaching hospitals have the policy that they do not deny any patient admission because of inability to pay. An Ohio medical school official told us, "Indigent care is dependent on the presence of educational programs." According to a March 1991 article in the Chronicle of Higher Education, teaching hospitals provided 42 percent of all uncompensated hospital care. This is an additional way in which health care costs are paid through the postsecondary education budget.

Research accounted for 15 percent of Medical College of Wisconsin expenditures and 40 percent of the UW-Medical School in the Wisconsin study. The latter school operates a cancer center and several facilities devoted primarily to research. The Wisconsin study did not attempt to estimate the costs of public service or administration.

While Wisconsin's cost structure may not be the same as Ohio's, their experience helps to illustrate how costs are distributed among varying categories.

Expenditures and revenues are not costs

Because education, health care, and research overlap extensively at medical schools and teaching hospitals, the *costs* of training physicians are not necessarily equal to either the expenditures or the revenues of medical schools. Figures provided by one Ohio medical school illustrate this. The school provided LOEO with two different estimates of the "costs" of medical education for fiscal year 1991. One estimate, based on the school's total *expenditures*, was $45,000 per student; the other, based on *revenues*, was $38,000 per student, 18 percent lower. And, as noted above, neither of these is necessarily the same as the cost of the medical education component of the school's overall programming.

Expenditures are not costs. Medical schools and hospitals are able to account for their expenditures. That is, they can determine how much is spent on personnel, how much on equipment, and so on. However, it is unclear how these expenditures relate to the costs of training physicians. Every expenditure by a medical school or teaching hospital is not a medical education cost. For example, a large amount of expenditures actually support research, patient care, and other items, as well as education.

To add to the complexity, not every "cost" of medical education involves an expenditure or cash outlay. For example, most medical schools make at least some use of physicians who voluntarily assist, advise, or even teach students. The cost of these volunteers' time--which is considerable for physicians--is never reflected as an expenditure, since the volunteers incur the cost in the form of reduced income.

Revenues are not costs. Medical schools and hospitals are also able to account for their revenues. That is, they know how much they received from patients, insurers, or government agencies for patient care, from state appropriations, from private donations, from government or private entities as research grants, from business enterprises associated with the facility, and from tuition and fees paid by medical students.

However, revenues have no necessary relationship to the cost of a medical education, so a system that accounts for medical school revenue is not the same as a system that accounts for medical education costs.

Need for cost allocation system

Representatives of medical schools and hospitals told LOEO staff that they would be able to devise a uniform method of accounting for their costs if told to do so. As noted above, though, there has never been any incentive for them to undertake this task on their own.

To design any cost allocation system, it is important to realize that it is essentially a set of reasonable rules. Accounting principles are merely the result of deciding on rules that various parties agree to apply uniformly. A recent accounting text cited a 1937 article in the Journal of Accountancy to this effect:

> The field of financial accounting is not one in which guidance is to be found wholly in fixed principles--it is a field of shadowy outlines in which the discovery of a correct course depends. . . upon informed and wise judgment; and upon objectiveness and honesty of purpose.

If the General Assembly ordered the design of a cost allocation system, Ohio's medical educators say they would be able to comply. No cost allocation system can be perfect because medical education and related health care are complex. However, a cost allocation system could at least provide uniform estimates across Ohio. This would allow more accurate and complete information for decisionmaking by the General Assembly, the Board of Regents, university trustees and administrators, and even by medical schools themselves, who now "have no clear notion of what their true costs are."

Establishing a cost allocation system will initially cost medical schools time and money. However, the design of such a system does not have to be elaborate. Instead, the result should be a common set of rules and definitions agreed to by all.

ACCOUNTABILITY

The report by the Southern Regional Education Board, the 15-state education compact mentioned previously, noted that:

> The economic realities require that state governments and state policymakers ask serious questions about all state appropriations. Medical education . . . has had relatively little scrutiny from state budget analysts and policymakers.

This statement also applies to Ohio. Medical education accounts for eight percent of the state's postsecondary budget. However, it is supporting only one to two percent of Ohio's public postsecondary student population. Neither the General Assembly nor the Regents staff provides clear direction as to how the funds should be used, and very little reporting is required of the medical schools in order for them to receive funds.

Lack of reporting

Medical schools were formerly required by law to submit annual Clinical Teaching Subsidy reports to the Regents. However, the General Assembly deleted the requirement in 1989, at the request of the Regents staff. The request was made because the Regents staff found they and other interested parties did not use the reports. However the information mandated by the former statute required "detailed operating budgets of the uses of these funds" and "actual clinical [teaching] subsidy expenditures and hospital income and expense." This information could have provided valuable insight into the costs of medical education.

According to the 1986 written agreement between the Ohio Board of Regents and Case Western Reserve University (CWRU) pertaining to the School of Medicine, enrollment reports are annually submitted to Regents. Although the agreement also directs CWRU to submit a financial accounting of expenditures, the Regents has never required that these be submitted.

Medical schools are required to submit to the Regents staff separate annual reports for most targeted program funding (i.e., Family Practice, Primary Care Residencies, and Geriatric Medicine funds). For the first ten years that the medical schools received general federal funding for Area Health Education Centers (AHEC), detailed reports were required and copies were submitted to the Regents. From 1988 to fall, 1991, no reports have been required.

One medical school dean said, "The reporting methods force accountability." However, LOEO's review of these documents found the reports to be statements of compliance with procedures, lists of activities, or workload measures, rather than descriptions of the results or effectiveness of programs. Cost reports contain insufficient detail to determine specifically how funds are being used. From these reports, it is not usually possible to determine whether spending supports medical students, residents, faculty, or administrators, for example.

Lack of evaluation

LOEO found that neither the Regents staff nor anyone else has conducted or required formal evaluations or other studies of the effects of the Geriatric Medicine, Family Practice, or Primary Care Residencies programs on the supply or knowledge base of primary care physicians. Nor has anyone conducted an evaluation of the clinical subsidies' formula or uses.

In 1987, the General Assembly directed the Regents to conduct a review of the Area Health Education Center program activities as funding shifted from federal to state support. The resulting 1988 report analyzed Ohio's AHEC program. However, neither this Ohio review nor the 1990 national evaluation determined AHEC's impact on the geographic distribution of health professionals.

The 1990 Evaluation of the Impact of the National AHEC Program acknowledged that the "extent to which AHEC efforts . . . have reduced the health manpower shortages and other problems" is "left unanswered." They conclude that attributing changes to the AHEC program is difficult because of other similar efforts that have operated at the same time.

In the Ohio report, several reviewers recommended that a method of "follow-up on practice location" be established to determine "AHEC impact on health care in Ohio." As recommended by this report, the next biennial budget required the Regents to design a strategic plan "with clearly identified and measurable outcomes." In 1990, the AHEC Strategic Plan report assessed the health care needs and repeated a recommendation from the 1988 report to evaluate individual and statewide AHEC programs in Ohio. To date, there has been no Ohio evaluation.

As previously stated, lack of evaluation is not unique to Ohio. LOEO conducted a telephone survey of six other states that have seven or more medical schools. None of these states have specific accountability requirements for their medical schools. One legislature had requested a special study on the efficiency of teaching hospitals.

Section 3333.04 of the Ohio Revised Code requires the Board of Regents to "make studies of state policy in the field of higher education...review the appropriation requests" and make recommendations to initiate, continue or eliminate programs. (Appendix E contains more detail.) Despite these statutory requirements, Regents staff told us they gather data on programs, but do not assess or evaluate them. The Regents' Vice Chancellor for Administration wrote that the Regents staff saw "no particular reason to revisit" medical education programs, and "no basis for recommending change" in any.

Lack of competitive funding

One strategy to encourage accountability is to distribute funds competitively. Accountability may be a byproduct of obtaining the information needed to identify successful programs.

Only two of the line items, Family Practice and Primary Care Residencies, are partially distributed on a competitive basis. Approximately one half of these funds are guaranteed, while the remainder are allocated according to the number of graduates who are in a primary care residency or establish a practice in Ohio.

A legislatively mandated 1978 Ohio Regents' feasibility study, chaired by an outside consultant, recommended that Geriatric Medicine funds be distributed on a competitive basis. However, the Regents staff found that its competitive method gave all schools almost the same amount, so the system was abandoned and the Regents decided to give each school an equal allocation.

Similarly, the 118th General Assembly, following the Regents' recommendation, statutorily directed the Regents to award up to $250,000 of AHEC dollars for incentive grants on a competitive basis. Instead, the Regents staff distributed all the funds evenly among the medical schools, except for $22,000, reportedly because the General Assembly had not appropriated additional funds for the competitive grants. Regents staff used the remaining $22,000 to fund a study of Ohio's need for allied health professionals, and no competitive grants were awarded.

CHAPTER III
GENERAL-PURPOSE SUBSIDIES FOR MEDICAL EDUCATION

This chapter discusses the distribution and uses of the three types of general-purpose subsidies provided by the General Assembly to the medical schools in Ohio:

1. The six public medical schools, the four associated with public universities and two free-standing ones, receive funds through the state instructional subsidy;

2. The six public medical schools each receive a separate clinical teaching subsidy, sometimes called the "clinical subsidy"; and

3. The one private medical school receives a subsidy, called the Case Western Reserve University School of Medicine (CWRU), with a stipulation that admissions preference be given to Ohio applicants.

These subsidies may be spent on whatever the individual medical colleges choose. Despite their names, the instructional subsidies do not pay for classroom costs only, nor are the clinical teaching subsidies solely for clinical experiences. In fact, there appears to be some overlap regarding how the funds are used.

INSTRUCTIONAL SUBSIDIES

The instructional subsidy is the major vehicle for calculating and distributing state appropriations to all public institutions of postsecondary education. The process is summarized in LOEO's July 1990 Research Memorandum, "State Funding for Public Higher Education: The Instructional Subsidy." All instructional subsidy funds are disbursed as unrestricted revenues to the universities, which then distribute the money according to their institutional budgets.

As mentioned, whether medical schools receive funds through a university or directly, the medical schools can use the funds for any purpose. The two free-standing medical schools receive their instructional subsidy allocations directly, rather than through a university.

Distribution formula

The amount distributed to each institution is based on the enrollment in each academic program and the program's estimated per-student cost. For example, this

distribution formula recognizes that it is more expensive to educate a student in a master's program in engineering than a baccalaureate student in sociology.

The distribution formula groups all academic programs into 15 different cost-based categories. For example, large freshman lecture classes are grouped in one category, and upper classmen in engineering classes or labs are grouped in another, more expensive cost-based category. The most expensive cost-based category is called the "Medical II" model. It is used to calculate the amount of instructional subsidy allocated to the institutions which operate Ohio's six public medical schools.

Unlike the other categories, which are based on statewide average costs, the Medical II calculations use data from only one medical school, that at Ohio State University. The Regents staff reports that efforts are now underway to broaden the information base used in the Medical II calculations.

For fiscal year 1991, the Medical II model resulted in the distribution of $73.1 million in instructional subsidy funds. This $73.1 million is slightly more than 50 percent of the total dollar appropriation for all medical education line items.

For fiscal year 1991, the formula used to calculate the instructional subsidy amount estimated that a medical school spent $30,207 annually to train a medical student. The state paid $21,394 per student and assumed that the student paid the remaining $8,814.

Exhibit 2 lists instructional fees paid during fiscal year 1991 by Ohio residents attending the six public medical schools. Since the assumed payment of $8,814 is higher than the amount a student actually paid, medical schools must either spend less than the model estimates or use revenues generated by sources other than instructional fees from medical students. Free-standing medical schools probably spend less than the model assumes, because they are limited in the other resources available to them. At other universities, it is possible that pre-baccalaureate student fees, alumni donations, and other sources of revenues may, in effect, be subsidizing medical school programs.

EXHIBIT 2

SCHOOL	FY 1991 INSTRUCTIONAL FEES
University of Cincinnati College of Medicine	7,674
Wright State University School of Medicine	7,035
Medical College of Ohio at Toledo	6,960
Northeastern Ohio Universities College of Medicine	6,840
Ohio University College of Osteopathic Medicine	6,195
Ohio State University College of Medicine	5,994

Source: Ohio Board of Regents, Fall Survey of Student Charges, September 1990.

Enrollment reduction incentive

Since 1985, the General Assembly has given public medical schools an additional financial incentive if they reduce their entering class size by at least ten percent. Between fiscal years 1985 and 1991, the total enrollment at all the public medical schools dropped by 342 students or 11 percent.

Although there is no written rationale for this enrollment reduction policy, various medical school officials said that the legislature feared a physician surplus in the early 1980s. As one dean said, the enrollment reduction policy was "not to cut the cost of education, but to get fewer doctors." During this same time, a 1983 Board of Regents publication said that Ohio's seven medical schools could show a "sizable overproduction of physicians by the early 1990s." The rationale for the enrollment reduction policy has not been formally revisited, and as health care costs escalate, Ohio and national experts continue to differ on how many physicians are needed.

CLINICAL TEACHING SUBSIDIES

According to the Legislative Budget Office, the clinical teaching subsidy is to pay for "education and research (but not patient care)" at clinical educational facilities. The Regents staff states that the subsidy is "intended to support the clinical educational costs that are an essential part of a medical education."

However, although the instructional subsidy's calculation is based on the OSU experience of medical education costs, the clinical and CWRU subsidies have no

identifiable cost basis. As noted in Chapter II, neither the Regents staff, medical school administrators, or hospital officials can define those costs. The Board of Regents has twice requested the General Assembly to provide $250,000 for a study of medical education funding. In its 1992-93 budget request, the Regents staff said "we have never been able to master the clinical side of medical education."

According to Regents and medical school officials we interviewed, the original allocations were negotiated among the medical schools and legislative leaders, using a 1972 national study by the Institute of Medicine and some data from Ohio State University. Since then, the Regents' budget request has been to maintain the same relative shares for each medical school, with some allowance for inflation.

Uses of clinical teaching subsidy

Although the medical schools are no longer required to do so, some continue to submit annual reports on the uses of their clinical teaching subsidy allocations. To determine how medical schools are using their clinical teaching subsidies, LOEO examined the most recent of these reports and asked each medical school to detail its use.

There is no typical pattern of use of clinical subsidies among the medical schools. Principal uses of the funds are for direct support of clinical faculty, administrative costs related to clinical programs, and the operation of clinical facilities (including instructional facilities, equipment, and libraries).

CASE WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE

In September 1969, under the authority of section 3333.10 of the Ohio Revised Code, the Ohio Board of Regents entered into an agreement with CWRU School of Medicine to admit "not less than 80 students to the medical program" for that year and not less than 100 students in 1970. Preference for the new slots was to be given to qualified students who are residents of Ohio. In return, the state agreed to subsidize CWRU on a per-student basis.

For fiscal year 1991, the General Assembly appropriated $5.5 million to CWRU School of Medicine. This amounts to nearly $16,000 for each of the 345 medical students who are Ohio residents.

Intent of subsidy

The original purpose of the CWRU subsidy was to alleviate what the legislature saw as a statewide shortage of physicians in the late 1960s. At that time, in Ohio there were medical colleges only at CWRU, Ohio State University, Medical College of Ohio at Toledo, and the University of Cincinnati.

According to a 1969 Toledo Blade article, one proposed solution to the physician shortage was to build a new medical school. The head of the Regents staff, however, said, "Subsidizing Case Western Reserve is far cheaper than beginning a new school." He said this would in effect give Ohio another medical school.

State funding of private medical schools is now more common than in the 1960s. Of the 10 states contacted by LOEO on the issue, all that have private medical schools subsidize them in some way. Each requires an agreement that links their funding to the number of in-state residents accepted. Most of these agreements were instituted around the same time that Ohio started to subsidize CWRU.

Use of the subsidy

There are few restrictions on how CWRU must spend this state money. All versions of the agreement require simply that CWRU use the money for instruction and general expenses for obtaining an MD degree.

Prior to the 1969 agreement, the CWRU medical school entering class consisted of 88 students, 50 percent of whom were Ohio residents. Since the mid-1970s, CWRU has reserved 60 percent of its first-year medical school class for Ohio residents, or 83 of 138 entering students.

A representative of CWRU interviewed by LOEO stated that, if there were no subsidy, "We would have fewer Ohio students."

RETAINING MEDICAL SCHOOL GRADUATES IN OHIO

There is an inconsistency between the policies for the CWRU subsidy and the instructional subsidy to Ohio's public medical colleges. Funding for CWRU is provided in exchange for an increased number of Ohio students, while the instructional subsidy pays public medical schools to keep their enrollments down.

An implicit expectation of the CWRU, instructional, and other subsidies is that some Ohio medical school graduates will choose to remain in the state to set up practice. Meeting any remaining need for physicians is dependent on attracting new physicians from other states. The Ohio State Medical Board only recently began to maintain accessible records on the origins of licensed physicians, so it is not possible to calculate migration and retention trends precisely for Ohio's practicing physicians.

To obtain a sample of retention rates with which to compare Ohio, LOEO surveyed one public medical school from each of the nine states shown in Exhibit 3. Each state's largest public medical school provided information about where its 1985 and 1989 graduates chose to do their first year of residency. (Although it would be more useful

to compare where the graduates ultimately set up their practices, residency choice was the only consistent data that every school was able to provide.)

EXHIBIT 3

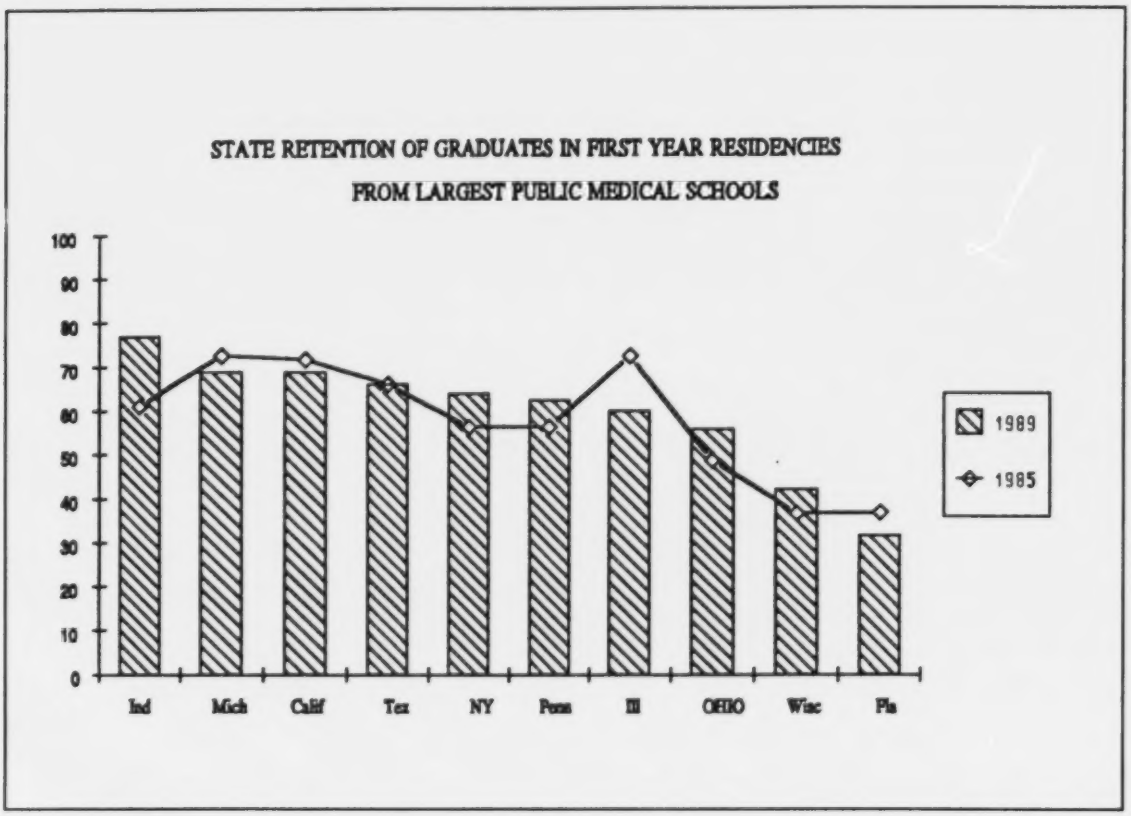

Exhibit 3 illustrates that the retention rate for Ohio's largest medical school is better than only two of the nine other states' largest medical schools. This sample of one school is relatively consistent with Ohio's mean retention rate of graduates that remained in Ohio to do their first year of residency. In 1989, the mean retention rate for all seven Ohio schools was about 60 percent. In 1985, the mean was 55 percent. Using only two snapshots over a five-year period, however, does not necessarily suggest a trend.

The data above are only about residency choices and are not necessarily a reliable predictor of Ohio's future physician supply. The Association of American Medical Colleges (AAMC) provided a state sample survey on the 1970-1979 MD graduates who were practicing in 1990 in the state where they received their undergraduate medical education. According to their estimates, Ohio's retention rate for three Ohio public

medical schools is below the national average of 47 percent for public medical schools. The three newest MD medical schools were too new to be included in the survey.

Retention rates for two of Ohio's public medical colleges were 45 percent and the third was 33 percent for 1970-79 graduates who now practice in Ohio after completing their medical education here. Case Western Reserve University School of Medicine's retention rate is approximately equal to the national average for private medical schools, about 29 percent.

Ohio University's College of Osteopathic Medicine has initiated a type of local retention model. To attend their college, out-of-state students must agree to stay and practice in Ohio for five years after they receive their DO degree and complete additional training. Students who breach the contract incur a penalty based on the amount the state pays the medical school through the instructional subsidy.

CHAPTER IV
TARGETED PROGRAM FUNDING FOR MEDICAL EDUCATION

To ensure basic and preventive health care for Ohioans, the state needs an ample supply of primary care physicians, well distributed geographically, and able to care for the diverse needs of patients. More obviously than the general-purpose subsidies, funding to influence the supply and distribution of primary care physicians has become a matter of health care, as well as education, policy.

Nearly two decades ago the General Assembly first attempted to:

* increase the supply of primary care physicians in Ohio through family practice and primary care residencies funding to medical schools;

* better distribute health professionals, particularly physicians, in Ohio through the Area Health Education Center (AHEC) funding; and

* increase physicians' knowledge about the medical needs of the elderly population through geriatric medicine funding to Ohio medical schools.

This chapter focuses on the intent and effectiveness of these four targeted programs.

SUPPLY OF PRIMARY CARE PHYSICIANS IN OHIO

According to the definition used by the Ohio Department of Health, "primary care" physicians practice in one of four areas: family/general practice, general internal medicine, general pediatrics, or obstetrics and gynecology.

Primary care physicians provide general and preventive care for common health problems, ordinarily on an outpatient basis. A primary care physician is usually the first physician a patient sees. If the patient requires more specialized care, the primary care physician may then refer the patient to a more specialized physician, such as a surgeon or a dermatologist.

Family Practice appropriation

"Family medicine" is a general term that includes both general practice and the family practice specialty. After receiving an MD or a DO degree and one year of general internship, a physician qualifies to open a "general practice." In 1969, the National Specialty Board established a "family practice" specialty, defined as the "provision of general medical care to all family members." Family practice physicians must receive

three years of specialty training through a residency program upon completion of the MD or DO degree.

In 1974, the Ohio General Assembly enacted section 3333.11 of the Revised Code and provided line item funding for "Family Practice." The statute requires each medical school to create a curriculum and maintain a department of family practice. According to the Legislative Service Commission analysis of this statute, these actions were "to intensify efforts to solve the problem of decreasing numbers of physicians in general practice in Ohio."

According to a 1974 report by the Ohio Board of Regents, this new funding was be start-up funding to help establish departments. "After the initial three years of special funding," the report states, "the programs should be included in the overall budgeting processes of the medical schools."

The Regents continues to request increased funding, and for fiscal year 1991 the General Assembly appropriated $8.3 million for Family Practice. From this total, the Board of Regents staff distributes 45 percent evenly among all seven medical schools as base support. The Regents staff distributes the remaining 55 percent among the medical schools based on the number of each school's graduates who enter family practice residencies, as well as the number of their residents, osteopathic internships, and fellows who establish family practice practices in Ohio. The information about those who establish practices in Ohio includes graduates from in- and out-of-state undergraduate medical education programs. Therefore, it is not a systematic tracking of Ohio medical school graduates.

The statute and rules do not specify how the medical schools are to use the funds, although they must submit budgets. From LOEO's interviews and the annual reports medical schools submit to the Regents staff, LOEO found that program funds support both undergraduate medical education and residencies in family practice. It is difficult to isolate specific elements of educational programs supported by the line item, because the schools do not account for or report costs separately for the two levels of students.

Primary Care Residencies appropriation

No statutory language describes the purpose or use of the "Primary Care Residencies" line item. The Legislative Budget Office analysis of the original 1977 legislation said the primary care residencies program was "intended to encourage Ohio's medical. . . graduates to establish permanent practices in Ohio."

For fiscal year 1991, the General Assembly appropriated $3.6 million for this program. The Regents staff distributes 65 percent of this evenly to the seven medical schools as base support. The remaining 35 percent of these funds is allocated to colleges

based on a system of "incentive" points. The amount of funds awarded to each school is determined by the number of its graduates entering pediatric or internal medicine residencies, as well as the number of its residents who establish practices in Ohio. Even though family practice and obstetrics and gynecology are included in the definition of primary care, Regents staff does not collect or use data on these specialties in awarding Primary Care Residencies funds.

Despite the line item's title, funds are not used exclusively for "residencies." Medical schools use this money to support activities in the departments of internal medicine, pediatrics, and family practice. The medical schools report that the funds support activities for both medical students and graduate residents. The amount of funds used for each could not be distinguished.

Among the four schools which provided a complete breakdown of their use of program funds, three use between 69 and 100 percent of the funds for faculty salaries. The fourth school uses 26 percent of the money to support faculty salaries, with most of the remainder spent on medical students' pre-clerkships in hospital clinics. The term "faculty," as used here, might include full-time or part-time professors, residents, field experience supervisors, or others. Other uses include nurses' salaries, residents' salaries, university support services, departmental support, and clerical support.

LOEO found that medical schools refer to the Primary Care Residency and Family Practice line items almost interchangeably. Medical school and Regents administrators frequently discussed the two as if they were one program.

Adequacy of supply

As noted, both the primary care residencies and family practice line items were established to increase the supply of primary care physicians in Ohio.

According to the Ohio Department of Health, a generally accepted ratio of population to practicing primary care physicians is 2,000:1. In 1990, Ohio's ratio was 1,172:1. This figure may be inflated, however, because it includes all licensed primary care physicians who report their status as active. They may not be practicing full time and, in fact, some may not be practicing at all. In addition, this statewide population/physician ratio does not mean the state has enough physicians in rural and inner city areas. The range in Ohio counties was from well under 1000:1 in counties with an urban center to close to 6000:1 in one rural county.

Whether or not the United States, or Ohio, needs more physicians overall, few experts question the need for more primary care physicians. According to a 1988 report of the Council on Graduate Medical Education (COGME), the United States has an

excess of most specialist physicians, but an undersupply of physicians in family practice, and an imminent undersupply of physicians in general internal medicine.

Pediatrics is the only primary care specialty that appears to have an impending oversupply, according to COGME. The American Academy of Pediatrics recently reported that the number of pediatricians has more than doubled over the past 20 years. In contrast, other studies and testimony presented to the Council suggest that the increased cost of liability insurance has a negative impact on the supply of obstetricians and gynecologists.

Experts say there are several reasons for the shortage of some primary care physicians. First, a large proportion of primary care physicians is approaching retirement age. Current medical students are not choosing primary care fields at a rate that will allow for replacement of those aging practitioners. Many physicians entering internal medicine and pediatrics are choosing subspecialties and are not actually primary care practitioners.

Second, the demand for primary care physicians is increasing, with the growth of such entities as health maintenance organizations, and with the aging of the U.S. population. Two thirds of all visits to doctors are to a primary care physician, according to a 1984 report by the Ohio Department of Health. Currently, only 41 percent of all licensed Ohio physicians are in primary care.

Third, over the past ten years, the growth rate of physicians in primary care has not kept pace with other medical specialties. Between 1986 and 2000, primary care physicians will increase by only 23 percent, while other medical specialties will increase by 63 percent, according to a report from the 1990 U.S. Department of Health and Human Services to the President and Congress. The 1991 Ohio legislative interim report of a Task Force on Health Care and Health Insurance projects that Ohio's physician supply is expected to reflect the national situation.

Effectiveness of Family Practice and Primary Care Residencies funding

Regents staff and the medical schools report that there are now more residency positions and more graduates choosing primary care residencies in Ohio. According to a Regents' document, Ohio is above the national average in terms of the number of public medical school graduates who choose primary care specialties.

Medical schools say that more family practice curricula are available, exposing more students to this career option. Since 1977, an annual average of 14 more Ohio graduate MDs above the 1976 level have entered family practice residencies in Ohio. Between 1977 and 1988, about 13 percent--or approximately 800 of the 10,500 Ohio MD school graduates--entered family practice residencies in Ohio.

Since the medical schools do not systematically track these graduates after they begin their residency, it is not known how many of these graduates remain in Ohio when their residencies end. Further, Regents' figures do not include the Ohio University College of Osteopathic Medicine.

The targeted subsidy is not likely to be the sole cause of the 14-physician annual increase. Three new medical schools, at Ohio University, Northeastern Ohio University College of Medicine, and Wright State University, were charged with producing family medicine physicians, and opened between 1973 and 1975. A large increase in the number of graduates entering family medicine residencies in Ohio coincides with the first graduating class from the Wright State University School of Medicine, for example.

For the primary care residencies funds, statistics from the Board of Regents only date back to 1984 for the number of graduates entering a residency in internal medicine or pediatrics. For this five-year period, there is no significant increase in the number of graduates pursuing one of these two primary care fields. These data do not include information on graduates in obstetrics/gynecology residencies, and although the Regents collect data on Ohio University graduates, it is not included as part of the compiled data.

The most recent data provided by the Regents staff about internal medicine and pediatric residents are from 1988. The data reveal that there were 189 graduates (23 percent of total graduates) that remained in Ohio to enter internal medicine or pediatric residencies. Like family practice graduates, it is not known how many will remain in Ohio as general internists or pediatricians, rather than subspecialists, when their residencies end.

Continuing need for primary care physicians

Despite more Ohio primary care graduates, there continue to be predictions of an inadequate supply of some primary care physicians, particularly family practitioners and general internists. In addition, national experts continue to observe that new graduates are not choosing primary care fields. For example, while there has been an increase in the number of graduates pursuing family practice, there is an increasing vacancy rate among these residency positions.

Nationally, experts have noted several economic and social disincentives that keep students from pursuing careers in primary care medicine. These may also be among the reasons Ohio's targeted programs have not produced larger numbers of additional primary care physicians.

First, the income of primary care physicians is frequently lower than that of highly technical specialized physicians--sometimes only half as much. In a 1987 article in Medical Economics, the three types of practitioners with the lowest net earnings were

pediatricians, general practitioners, and family practice physicians. General practitioners had annual net earnings of $72,840, while the top earners among the specialists were neurosurgeons at $203,570. (For physicians, "net" earnings is after expenses, but before taxes.)

High indebtedness, coupled with lower income potential in a primary care field, can further induce students into other specialties which enable them to repay debts sooner. According to the American Association of Medical Colleges (AAMC), the average medical school graduate owes $42,374, not including any debts remaining from the baccalaureate level. This amount is even greater for minority students--almost 14 percent higher than the mean debt of all graduates.

Second, the status of primary care is lower than that of other specialties. One primary care practitioner said academics convey a subtle attitude to students that, "if you're a <u>really</u> good doctor" you will not pursue a primary care specialty.

A current proposal by the federal government may help to increase the regard in which primary care physicians are held. Under the proposal, Medicare payments would become higher for primary care services and lower for other medical specialty services. If this approach is followed for Medicare, it is likely to be adopted by Medicaid and other third-party payers. Although there is a difference of opinion about the impact that this program will have on primary care physicians, it does provide a direct financial incentive to individuals. This approach may influence medical students' career choices more than Ohio's indirect approach of funding specific programs or medical schools.

DISTRIBUTION OF PHYSICIANS WITHIN OHIO

In 1970 the Carnegie Commission on Higher Education stated that "a better geographic distribution of health care personnel and education facilities" should be one of the nation's top health care priorities, "particularly in inner city and rural areas." Today, the federal Health Care Financing Administration (HCFA) estimates that over half of the counties in Ohio and the United States do not have an adequate number of primary care physicians. HCFA uses the federal designations for shortage areas as part of the criteria for reimbursement of some Medicare and Medicaid funds.

Experts have found several reasons physicians, in particular, do not set up practice in underserved areas. First, although physicians tend to set up practice near the site of their residencies, recent research suggests that physicians are more likely to choose both residency and practice locations in geographic areas similar to those in which they were raised.

Second, numerous studies state that living conditions and logistical difficulties discourage schools from providing training, and physicians from settling, in underserved

areas. According to these studies, the size and amenities of a community, access to continuing education, and opportunities to join a group practice are some factors that add or detract to the appeal of a location.

Finally, medical education training in ambulatory or outpatient settings, such as clinics and physicians' offices, helps to expose students and residents to practice location choices different than hospital settings. Particularly for those in the primary care fields, ambulatory settings resemble the conditions in which they will practice. However, medical education in ambulatory settings is difficult to arrange for several reasons:

* Financing for residencies in outpatient settings is often unstable or unavailable. Although an increasing proportion of health care is provided in these ambulatory settings, insurance companies and other third-party payers often provide lower reimbursements for clinic-based than for hospital-based services.

* Teaching residents and medical students in ambulatory settings is said to be more inefficient and costly, since teaching increases the time demands on physicians and other staff and reduces the number of paying patients they can treat.

Since the 1970s, the federal government has initiated a number of programs to address the problem of maldistribution, two of which are still in effect in Ohio. The first is the national Area Health Education Center (AHEC) program. In Ohio, federal funding for the program began in 1978, with state funding starting in 1981. Although some federal grants are still available, federal funding for base support of the program was phased out completely in 1988.

Another major effort by the federal government was the formation of the National Health Service Corps (NHSC) scholarship program in 1972. The NHSC is a national scholarship program which provides recipients --including physicians, dentists, nurses, and other health professionals-- tuition assistance in return for a minimum of two years' practice in an underserved area after their training is completed.

Between 1980 and 1990, NHSC has placed 10,500 health professionals, about 80 percent of them physicians, in geographic areas of the nation that lack an adequate number of health personnel and primary care services. Placements of NHSC scholars are based on a federal designation called "Health Professional Shortage Area" (HPSA). The U.S. Department of Health and Human Services designates whole or partial counties as HPSAs if the area has more than 3,000 citizens for every physician, and if it meets other criteria related to poverty and infant mortality rates.

Although Congress recently reauthorized the NHSC, funding levels for the program have declined and fewer scholarships have been awarded since 1985. In 1991, there are 13 NHSC personnel in Ohio's underserved areas; in 1990 there were 23; and in 1985

there were approximately 128. Once NHSC scholars complete their service obligation, there is no systematic follow-up to determine the number that remain in the underserved area. One 1988 study reports, however, that about half of NHSC physicians remain in the shortage area upon completion of their service.

Ohio's response

Since the 1970s, Ohio has also undertaken several efforts to better distribute health care professionals, particularly primary care physicians. These included locating medical schools throughout the state, and the construction of ambulatory or outpatient clinics at the three newest medical schools. In addition, the Family Practice statute requires each medical school to "develop residency and other training programs for family practice in public and private hospitals, including those in nonmetropolitan areas of the state." In 1981, all seven medical schools began to receive state line item support in addition to federal funds for the AHEC in their region.

Area Health Education Centers Program Support appropriation

There is no Ohio statute which describes the intent of the Area Health Education Center Program Support (AHEC) line item. The purpose and design of this program were formally framed in federal law in 1975. The establishment of these centers was a national strategy to address the problems of the primary care physician shortage and the maldistribution of all health professionals, not just physicians. The plan was to link underserved communities with the academic resources of university-based health care training programs.

In its original request for state AHEC funding, the consortium of Ohio medical schools stated that the AHECs would "coordinate health education activities in the state" and "meet the health education needs of both urban and rural communities which are characterized by problems of inadequately distributed health manpower, limited access to quality health care, and deficiencies in availability of health services."

In Ohio, AHECs are administrative offices in six regions of the state from which AHEC activities are coordinated. They are not intended to be health care centers. AHEC projects coordinated around the state include clerkships for medical students, continuing professional education for practicing health care professionals in the area, and work with high schools to identify and recruit promising students into the health care field. In AHEC publications, clinical experiences and other programs for nurses, dentists, and health care professionals are also described.

Ohio began General Revenue Fund support for the program in 1981. The appropriation for fiscal year 1991 was nearly $2 million, distributed evenly among the medical schools as base support for the AHEC program in their areas. The Medical

College of Ohio receives an additional $45,000 from this appropriation to solicit federal and other external funds for the statewide AHEC consortium.

AHEC reports are not currently required, and statewide and regional publications which describe the centers' activities do not report the programs' expenditures. One coordinator told LOEO staff that much of their staff time is used to establish community-based clinical training sites for medical and other health students. Other coordinators stated that, besides general operational expenditures, some funds are used to reimburse expenses incurred traveling to and from off-campus clinical locations. One program pays to maintain a housing unit for students doing clerkships.

Adequacy of geographic distribution

AHECs were created to help improve the distribution of health care practitioners in underserved areas. Over the past ten years in Ohio, the distribution of primary care physicians in Ohio has improved:

* Fewer physicians are needed now to eliminate all the HPSA designations in Ohio. A total of 137 new or relocated physicians would be needed in Ohio's underserved areas in 1990, as opposed to 194 ten years ago; and

* Although in 1990 there were more areas designated as underserved HPSAs than in 1980, in fact these areas contain a smaller percent of Ohio's population. Sixteen percent of Ohio's population was underserved in 1980 compared with nine percent in 1990. For current distribution of HPSA designations in Ohio by county, see Appendix F.

Effectiveness of AHEC funding

Since the establishment of AHEC, medical schools report that there are more community-based, ambulatory or outpatient clinical training sites available to Ohio medical students and other health professionals. Some AHEC sites have developed active programs, such as continuing education outreach to physicians in remote areas, and at least one medical school requires all medical students to do an AHEC rotation during their fourth year in school.

LOEO used the 11 states in Exhibit 4 to determine whether AHEC had any effect on the improved distribution of physicians. New York had the most improvement between 1980 and 1990, and Indiana had the least in the number of physicians needed to eliminate HPSA designations. Neither of these states has had an AHEC program. Similar mixed results for other states in the sample suggest that, at least nationally, improvement is not necessarily the result of an AHEC program.

EXHIBIT 4

NUMBER OF PHYSICIANS NEEDED TO ELIMINATE UNDERSERVED AREAS			
STATE	**1980**	**1990**	**PERCENT CHANGE**
New York*	527	202	62%
Pennsylvania	189	77	59%
Kentucky	149	67	55%
Minnesota*	46	24	48%
Michigan	259	138	47%
Wisconsin*	92	64	30%
OHIO	194	137	29%
Texas	260	257	1%
California	385	419	-9%
Florida	176	235	-34%
Illinois*	318	744	-134%
Indiana*	113	307	-172%

* States with none or only one year of AHEC federal funding.

Sources: U.S. Department of Health and Human Services and Statistical Abstract of the United States, 1989

However, Ohio has improved somewhat and Ohio does have an AHEC program. Ohio's AHEC program explicitly addresses at least one of the reasons that can contribute to the maldistribution of physicians: lack of training in or exposure to ambulatory, non-hospital settings and underserved populations during undergraduate and graduate medical education. It is therefore possible that the Ohio AHEC program has had some effect on the improved geographic distribution of physicians in Ohio.

There are, however, many other efforts that have jointly or separately contributed to the improved distribution of physicians. As one Ohio AHEC coordinator acknowledged, "AHEC is only one player in the whole field of players."

Studies show that osteopathic and family practice physicians tend to establish rural practices in greater numbers than other physician specialists. Thus, the Family Practice state law and funding, as well as the presence of Ohio University's osteopathic college graduates, may also have contributed to improve the distribution. For example, Ohio

University College of Osteopathic Medicine leads all other Ohio medical schools with 44 percent of its graduates pursuing family medicine after their one-year internship. Again, it is also logical to assume that the placement of National Health Service Corps scholars in underserved areas has had a positive impact.

Continuing need for a better distribution of physicians

Geographic maldistribution "remains a serious and complex problem requiring solutions more broadly based than those focusing exclusively on medical education," asserts the national Council on Graduate Medical Education. However, Ohio so far has attempted to address the problem primarily through medical schools by funding the AHEC program.

Maldistribution of physicians continues, despite any state, local or federal efforts or improvements. A 1990 report of the U.S. Department of Health and Human Services says that, overall, younger physicians are simply not choosing rural practices, as evidenced by the fact that the average age of primary care physicians in rural areas is going up. In 1989, a study by the National Rural Health Association predicted that the number of these rural practitioners could drop 25 percent by 1994. The increasing number of HPSA designations in some of Ohio's urban areas, especially those with heavy Medicaid populations, also suggests that producing more physicians cannot alone reduce shortages.

Maldistribution of other health professionals also continues. As described in LOEO's November 1990 Research Memorandum, "Health Care Practitioners: Supply and Demand in Ohio," experts agree that, particularly in rural areas, there is an uneven geographic distribution of nurses and allied health professionals. The point was restated by both the 1990 AHEC Strategic Plan and the 1990-91 study group of allied health professionals appointed by the Board of Regents. The first stated goal in the AHEC Strategic Plan includes the objective that community-based clinical training through AHEC for other non-medical students should be expanded, stressing that their role is "critical."

Alternative approaches

While AHEC appears to address one of the three reasons a physician does not set up practice in underserved areas, at least two other factors could be addressed more fully. If a medical student's origins are an important factor in determining practice location, an effective measure to improve distribution would be to intensify efforts to recruit incoming medical students from rural and underserved urban areas. In addition, to the extent that living conditions are deterrents, a direct financial incentive to individuals is more likely to affect location choice than an approach that includes only payments to the medical school.

Twenty years ago, Minnesota began a program of direct incentives to improve distribution that has served as a model for recently established programs at medical schools in New York, Tennessee, and West Virginia. In 1969, a projected shortage of rural physicians prompted the Minnesota legislature to threaten the withdrawal of state funding to the University of Minnesota Medical School. The Rural Physician Associate Program (RPAP) was the result, following the legislature's charge for the school to develop a program to redistribute physicians into underserved areas.

Sixty-two percent of former medical students who participated in the University of Minnesota RPAP now practice in Minnesota, with the majority of these in rural locations. Among our sample states in Exhibit 4, Minnesota has the lowest number of physicians (24) needed to eliminate all of its underserved areas and has the lowest percent of population (7.5 percent) that is underserved.

Rather than a six-week clinical rotation in underserved areas, the Minnesota program requires third-year student participants to serve for nine to twelve months, in exchange for scholarships of $12,000 ($9,000 from the state and $3,000 provided by the physician preceptor or clinic). An additional $1,500 in federal work-study money is available to students with remaining unmet financial needs.

This approach is consistent with the findings of a 1991 report funded by the Carnegie Corporation, which found that sponsored employment or targeted work-study are effective recruitment tools, especially for low-income students.

The Carnegie report also stated that the most effective strategy for recruiting health professionals is a scholarship program with service pay-back requirements (such as the federal NHSC program). Successful models offer scholarships and stipends, and recipients must serve in the needed profession or geographic area for three to five years. Most health service programs incorporate a penalty of paying back three times the original amount if the contract is broken.

Loan forgiveness programs are cited by the Carnegie report as a third option, effective only when a very high portion of the loan is forgiven each year. Beginning in 1987, the NHSC has also provided a federal loan forgiveness program. Education loans incurred by selected health professionals are repaid if the individuals agree to practice in an underserved area for a minimum of two years. For fiscal year 1990, the priority for selecting health professionals was given to primary care physicians in the areas of family practice, obstetrics/gynecology, general pediatrics, and general internal medicine.

There are local efforts such as the Medical Educational Foundation of the Academy of Medicine of Lima and Allen County that has an interest forgiveness program. Over the past decade, they have entered into contracts with 17 medical students who agree to practice in their community upon completion of their residency. In exchange, the foundation provides an interest-free loan and attaches a financial penalty to contracts

that are breached. Thus far, most of the students they attract originate from the Lima area.

Of the 17 students who have participated in the program, seven are still in medical school, five have fulfilled their contracts by serving in the area, and five have chosen to practice elsewhere.

It appears that attempts to affect the geographic distribution of physicians must consider the conclusion expressed by Dr. Eli Ginzberg of Columbia University in a 1991 report on the costs of medical education to the American Medical Student Association:

> In the absence of special incentives, such as staged forgiveness of educational debt in exchange for a special period of directed service, physicians will not voluntarily establish a practice among the poor.

DEMAND FOR GERIATRIC MEDICINE TRAINING

Geriatric medicine deals with the diseases and health problems of old age. It is part of the larger field of gerontology, which considers all aspects of the lives of aging persons. The growth of the aging population in this country is having a significant impact upon medical and other services, and therefore on the training needed by service personnel of all kinds.

Geriatric Medicine appropriation

In 1977, in response to the increase in Ohio's aging population, the General Assembly enacted section 3333.111 of the Revised Code, requiring every state-supported or state-assisted medical school to have an office of geriatric medicine. The law does not mandate a separate academic department or a new medical specialty at any medical school. The mandate can be met by incorporating geriatric subject matter into a school's instructional and clinical curriculum. This can be done by adding courses or clinical rotations, by infusing information into existing courses or rotations, or by sponsoring seminars and other presentations.

Ohio may have been among the first states to require enhanced curricula and a geriatric office at each medical school, and to provide funding for these efforts. However, medical schools in other states are active in promoting geriatric education without specific statutory requirements or funding. In a survey of 119 U.S. medical schools (excluding schools of osteopathy) the American Association of Medical Colleges found that only five do not require any geriatrics training. Eight offer separate courses in geriatric medicine, and 106 incorporate geriatric medicine information in existing required courses.

The geriatric medicine appropriation for fiscal year 1991 is $ million. The Regents staff distributes an equal amount to each medical school. Of each share, 75 percent is considered basic support, and the other 25 percent is referred to as "enhancement funds."

Until FY 1990, geriatric medicine enhancement funds were distributed on a competitive basis for which the Regents staff and the medical schools devised a scoring system. Over time, the Regents staff observed that the point totals among all schools were almost equal. The Regents staff now distributes an equal amount to each of the seven medical schools. The Regents staff reports that the point system was retained to assess each school's eligibility for its share.

A broader gerontology focus is seen at a few institutions. For example, one medical school reports that one of its courses includes units on risk, diet, and activity levels for elderly persons, and that it helps students understand older people by making clinical experiences available at long-term care facilities in addition to hospitals. Another medical school uses some funds for a geriatric dentistry fellowship, and a third plans to open some of its geriatric medicine courses to graduate students in nursing, dentistry, and allied health professions.

Effectiveness of Geriatric Medicine funding

With the increasing elderly population, this funding is the state's attempt to ensure that physicians expand their understanding of the aging population's health needs. Medical schools and Regents staff report that geriatric medicine has been incorporated into relevant classroom curricula and increased educational opportunities through seminars and conferences. Since state funding began 14 years ago, medical schools and Regents report more clinical experiences for students in geriatric medicine, and more collaborative efforts between the schools. In addition, state funding may have enabled some medical schools to compete for faculty and for national research grants on geriatrics.

More than the other targeted programs, Geriatric Medicine has no real outcome measures. A number of medical school representatives said that it is difficult to measure or quantify the success of geriatric programs. Only one of the medical schools offered an outcome indicator stating that between three and five percent of their graduates choose clinical experiences in the geriatric area.

Unlike the Primary Care Residencies and Family Practice line items, graduates' residency or practice choices are not the best measurement, since the program's goal is not to produce more geriatricians. Rather, it is to expose all medical students to information on the health care needs of elderly people. Without some kind of systematic evaluation, however, it is not clear whether state support of geriatric medicine offices at medical schools produces more new physicians that are better able to treat older people.

CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

Over the past two decades, three new medical schools and several new targeted programs have increased the state of Ohio's commitment to medical education. In FY 1991, eight percent of the Board of Regents' budget, or $140 million, was given to Ohio's seven medical schools to train future physicians. Between one to two percent of postsecondary students in public institutions are enrolled in medical school programs.

From this study, LOEO concludes:

* **Considerably better information and accountability are needed.**

  The Board of Regents, medical schools, and the Ohio State Medical Board lack information about the cost of medical education and outcome measures regarding the supply and distribution of physicians, as well as the impact of funding Geriatric Medicine programs;

* **Clearer program direction is needed.**

  Policies on which funding is based are often not explicit, sometimes contradictory, and the intended uses of funds are not clear; and

* **More broadly based solutions are needed to address the issues related to supply and distribution of physicians throughout Ohio.**

  Solutions to the maldistribution of health care professionals are limited to providing funds only to medical schools.

Better information and accountability

If the General Assembly wishes to target funding more specifically -- or simply if it wants to make more informed decisions, considerably better information and accountability are needed.

Information. Particularly for AHEC, Family Practice, and Primary Care Residencies, state funding to medical schools is intended to help improve the availability of health care services. Without better data collection, however, it is not possible to analyze the outcome measures related to retention, practice location, and specialty selection by Ohio medical school graduates.

LOEO RECOMMENDS:

* The State Medical Board and the Ohio Department of Health compile and analyze outcome data and trends in retention and migration of physicians. Special analysis is needed on all graduates who establish a primary care practice in Ohio.
* "Primary care" be clearly defined to establish comparable data bases in Ohio. The Ohio Department of Health's definition of primary care should be used by all agencies. It includes obstetrics and gynecology specialists as part of the primary care definition.
* The Board of Regents include all physicians, including graduates from Ohio University College of Osteopathic Medicine, in all data and reports on medical education.
* The medical schools and Regents staff analyze the impact of the AHEC program on physician supply and location. Information on the practice location of graduates who participated in the AHEC program should provide the legislature with some valuable outcome measures.

The purpose of the geriatric medicine appropriation is to increase the knowledge base of each Ohio medical graduate regarding the elderly population. Since there has been no evaluation of Ohio's geriatric programs, it is not now clear whether Ohio medical school graduates are more effective in treating older people than the graduates of medical schools in states that do not provide such funding.

LOEO RECOMMENDS:

* The General Assembly require the Regents staff or LOEO to conduct a systematic evaluation of the effectiveness of the Geriatric Medicine program. Techniques for such an evaluation could include, for example, incorporating geriatric information into state licensing examinations, and surveying students, physicians, older patients and their families.

Accountability. According to information LOEO collected, the clinical teaching subsidies are intended to help offset the costs of medical education in the medical schools and hospitals. However, there is no statutory description or stated purpose for these subsidies. More importantly, there is no cost basis to determine the amount appropriated for this purpose, nor is there agreement as to what it costs to educate a medical student.

LOEO RECOMMENDS:

* The General Assembly direct the Board of Regents to work with all medical schools receiving state funds to design a uniform statewide cost allocation system for hospitals' and medical schools' costs. These costs could be used to calculate the Regents' biennial clinical teaching subsidy budget requests and instructional subsidy amounts.

  The General Assembly could direct the cost allocation system to provide separate cost estimates for:

  * undergraduate medical education;
  * graduate medical education (internships, residencies, fellowships);
  * education of students other than medical students;
  * continuing medical education of physicians;
  * direct patient care;
  * research;
  * administration; and
  * other activities.

  A uniform cost allocation system would allow the General Assembly, the Board of Regents, the universities, and the medical schools to have a common basis for deciding what they want medical schools to do and at what level of financial support.

  If the General Assembly does not wish the clinical subsidy to be based specifically on the costs of clinical medical education, the General Assembly could eliminate the clinical teaching subsidies as separate line items, and direct the Board of Regents to redesign the instructional subsidy in a way that includes the current clinical subsidy amounts.

Clearer policies and program directions

With more available information and an accounting of funds, policies should be reviewed to clarify program purposes.

LOEO RECOMMENDS:

* The Board of Regents and the Department of Health propose statutory language for those program funds which have none (such as clinical subsidies and primary care residencies). In addition:

  - Temporary language referring to sections 3333.11 and 3333.111 of the Ohio Revised Code is needed to direct the use of the Family Practice and Geriatric Medicine line items.

  - If the General Assembly wants Primary Care Residencies funds to continue to be used for general support of medical schools, this should be stated and the word "residencies" dropped from the name.

  - The General Assembly might consider restricting Primary Care funding to shortage specialties within Primary Care.

The instructional subsidy model's incentive to decrease medical school enrollments is a health care policy based on a ten-year-old projection. This policy directly conflicts with the intent of the Case Western Reserve University subsidy, which was to increase the number of Ohio medical students and the overall supply of physicians based on a 20-year-old projection. Neither policy has been revisited.

LOEO RECOMMENDS:

* The Board of Regents work with the Ohio Department of Health and the medical colleges and recommend to the General Assembly an overall policy regarding physician supply needs related to enrollment policies at Ohio medical schools.

More broadly based solutions

There are various programs that appear to be successful in recruiting and rewarding individuals rather than direct funding only to medical schools. To influence the behavior of current and future physicians, it is logical to target incentives toward these individuals.

LOEO RECOMMENDS:

* Medical schools look for ways to broaden the applicant pool. The Board of Regents could encourage this by establishing an incentive program based on the number or percent of minority graduates or others recruited into medical schools from medically underserved areas.

* The General Assembly consider creating a pilot project to establish individual incentives to become primary care physicians and practice in underserved areas through a state scholarship and work study program.

  Clear outcome measures should be developed. A ten-year evaluation could follow, comparing the costs, benefits, and outcome measures of the pilot program contrasted with those of the AHEC, Family Practice and Primary Care Residencies subsidies to medical schools. If the program has proven effective, continue it with a five-year evaluation cycle.

* The General Assembly direct the Ohio departments of Health, Insurance, and Human Services to investigate the feasibility of adopting the new Medicare proposal for Ohio. This proposal intends to increase the economic incentive for primary care physicians.

APPENDICES

APPENDIX A

OHIO'S APPROPRIATIONS FOR PHYSICIAN TRAINING
(rounded to the nearest thousand)

	1956	1971	1976	1981	1986	1991
Ohio State University Clinical Teaching	1,785,000	8,237,000	10,127,000	12,022,000	12,961,000	14,027,000
Case Western Reserve University Medical/Dental*		1,500,000	4,882,000	6,228,000	4,940,000	5,356,000
University of Cincinnati Clinical Teaching			3,659,000	4,410,000	10,651,000	11,537,000
Medical College of Ohio Clinical Teaching		4,050,000	6,566,000	9,669,000	8,307,000	8,993,000
Wright State University Clinical Teaching **			980,000	3,250,000	3,098,000	4,369,000
Northeastern Ohio Universities College of Medicine Clinical Teaching			1,568,000	3,233,000	3,898,000	4,223,000
Ohio University Clinical Teaching			172,000	2,925,000	3,099,000	4,223,000
Geriatric Medicine				1,019,000	1,266,000	1,300,000
Primary Care Residencies				2,579,000	3,540,000	3,597,000
Family Practice			1,470,000	5,325,000	7,237,000	7,427,000
Area Health Education Center					1,696,000	1,855,000

SOURCES: Ohio Board of Regents "Basic Data Series: Ohio Higher Education System," 1987 Edition.
Adjusted appropriations from various appropriation acts.

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* Medical subsidy only for 1986 and 1991.

** For FY 1991, $150,000 of total designated for the Ellis Institute, a training center of the School of Professional Psychology that trains clinical psychologists, not physicians.

APPENDIX B

WRIGHT STATE UNIVERSITY'S ELLIS INSTITUTE

The clinical teaching subsidy appropriation for the School of Medicine at Wright State University required that $150,000 of this fund for FY 1991 go to the School of Professional Psychology to fund the Ellis Institute, a service and training center within the School of Professional Psychology. This is the only clinical subsidy which has a portion of its funds earmarked for a specific purpose and the only clinical subsidy which has a portion of its funds benefiting non-medical students.

The Ellis Institute provides clinical experiences to students in Wright State's School of Professional Psychology, as well as psychological assessment and treatment to patients in the Dayton area. Earmarked funding for the Institute first appeared during the 1989 budget cycle, at the time the Institute was established.

Wright State's program is the only one in Ohio that offers the Doctor of Psychology (Psy. D.) degree. It differs from Ph.D. programs in psychology at other institutions in placing a strong concentration on preparing students for clinical practice, with less emphasis on research and theory.

Wright State officials say the cost of the additional clinical training justifies the state subsidy. Because the clinical emphasis is a permanent part of the Psy.D. program, they say, the funds were not intended as start-up assistance, but will be needed indefinitely.

APPENDIX C

OHIO COLLEGE OF PODIATRIC MEDICINE

The Ohio College of Podiatric Medicine (OCPM) in Cleveland is one of seven podiatric medicine schools in the United States. It enrolls about 550 students, 30 to 40 percent of them Ohio residents. Its four-year course of study leads to a Doctor of Podiatric Medicine (DPM) degree for about 140 graduates annually.

A DPM, once licensed by the State Medical Board, can provide medical, mechanical, and surgical treatment of foot and leg muscles and their associated tendons, and of superficial hand lesions other than those resulting from trauma. DPMs cannot admit patients to hospitals on their own; they can only co-admit with an MD or a DO.

OCPM's tuition is around $11,000 a year. The College says it provides unreimbursed care worth several hundred thousand dollars a year through the Cleveland Foot Clinic.

In December 1986, the Joint Select Committee on Podiatric Medicine in Ohio recommended that the General Assembly provide an operating subsidy to OCPM, citing shortages of podiatrists in several counties and mounting costs to OCPM, which at that time was 85 percent supported by tuition. The Committee also proposed that the state provide capital funding to OCPM through the state's capital budget.

The Committee said OCPM would use the money for residencies (there were no podiatry residencies in Ohio at that time); to expand clerkships in hospitals; to provide a partial tuition remission; for faculty development; and to enhance computer-assisted instruction.

For the fiscal year 1991, the General Assembly appropriated $1.2 million from the General Revenue Fund to the Board of Regents for the OCPM Clinical Subsidy (line 235-543). OCPM received capital appropriations totaling $2.5 million since FY 1986.

A 1990 report by OCPM detailed the school's uses of the state subsidy. OCPM has established about 20 residencies in Ohio. About 85 percent of its graduates now find residencies, compared to 60 percent before, and almost all of OCPM'S female and minority graduates are placed in residencies. The school has also expanded clerkship programs.

APPENDIX D

THE OHIO STATE UNIVERSITY CANCER HOSPITAL

The cancer hospital at Ohio State University (OSU) opened in the fall of 1990. In addition to cancer treatment, its mission includes research and teaching.

The cancer hospital is a separate unit of the university and is not part of the OSU hospital system. This organizational arrangement has allowed the cancer hospital to obtain special treatment under federal health care financing laws. However, this also means the university's general funds must make up any operating deficit the cancer hospital experiences.

Because such hospitals can never support themselves by patient fees alone, the university says it hopes to attract endowment and grant funds sufficient to operate the facility. Until this funding is in place, the university says, the state general fund must make up the difference. The General Assembly appropriated $2.4 million for the cancer hospital for fiscal year 1991. The university says these amounts are "start-up costs" until adequate outside funding can be located.

The university did not have a financial plan for the cancer hospital before it opened the facility. In its first year of operation, the cancer hospital lost $10 million. It had fewer patients, lower revenues, and higher costs than the university had projected. According to news reports, the university attributes the higher-than-expected deficit to the water damage that delayed the hospital's opening.

OSU and cancer hospital officials say the facility should not need state appropriations after three or four years of operation. Regents staff members and representatives of the OSU medical school and OSU hospital system seemed less optimistic. The university has hired a consultant to develop a financial plan for the cancer hospital during the fall of 1991.

APPENDIX E

EXCERPTS FROM OHIO REVISED CODE SECTION 3333.04 REGARDING OHIO BOARD OF REGENTS' RESPONSIBILITIES

(A) Make studies of state policy in the field of higher education;

(E) Recommend the nature of the programs. . . which should be offered by . . . state-assisted institutions of higher education;

(F) Recommend to the . . . state-assisted institutions of higher education programs which could be eliminated because they constitute unnecessary duplication, or for other good and sufficient cause;

(G) Recommend to the . . . state-assisted institutions of higher education programs which should be added;

(H) Conduct studies for the. . .state-assisted institutions to assist them in making the best and most efficient use of their existing facilities and personnel;

(J) Review the appropriation requests of the public community colleges and the state colleges and universities and submit. . .its recommendations.

APPENDIX F

HEALTH PROFESSIONAL SHORTAGE AREA (HPSA)

Counties with whole county HPSA designations in 1990.

* Counties with partial HPSA designations in 1990.

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RESPONSES FROM OHIO BOARD OF REGENTS, OHIO DEPARTMENT OF HEALTH AND LOEO NOTES

LOEO NOTES
TO
OHIO BOARD OF REGENTS RESPONSE

The Legislative Committee on Education Oversight allows agencies affected by LOEO studies to have comments of reasonable length included in the final report. LOEO staff may add notes to an agency response if the response contains significant incorrect or other potentially misleading statements.

LOEO scope and methods: Throughout the Regents staff response, it is asserted that LOEO's report does not address the "quality" of medical education. On page 4 of the report we explicitly state that this is not the focus of our research.

"Errors of fact": The Regents staff response states, on pages 1 and 2, five "errors of fact or misleading implications" in the LOEO report. In LOEO's opinion, the Regents staff response identifies no errors of fact. What it does identify are differences of opinion and interpretations.

We have reviewed these, and offer the following clarifications to their numbered comments:

1. and 4. Legislative intent and Regents evaluation:

The Regents staff response says, "...we have implemented these programs as the legislature intended." LOEO does not mean to imply that the Regents staff is not carrying out the legislative intent of medical education programs. LOEO and the Regents have both agreed that legislative intent and program direction are unclear.

However, it is important that the Regents staff begin regular and systematic evaluation of these and other programs for which the General Assembly appropriates funds to the Board of Regents. For example, the Board of Regents is required by its authorizing statute to recommend the initiation, continuation, or elimination of programs; the Board cannot do this if its staff does not evaluate the effectiveness and impact of programs. It is especially important to define objectives and conduct evaluations of programs where statements of legislative intent are unclear.

The Chancellor wrote to LOEO in September 1991, ". . .it cannot be said that the Regents have conducted regular, comprehensive evaluations of . . . family practice, primary care, AHEC, and geriatrics...." However, the current Regents staff response, written one month later, says, "We. . . have consistently monitored and evaluated medical education in Ohio," and "We constantly assess medical education and evaluate effectiveness, in the widest sense. . . ."

LOEO has no evidence that the Regents staff has evaluated the effectiveness or impact of any medical education program.

2. Required AHEC reports: The Regents staff response states that reports are required for the AHEC program, contrary to a statement in the LOEO text. The Regents staff member who administers medical education programs confirms that no reports have been required since 1988, although some reports are now due. She did say that "reports of some sort" in an unspecified format had been submitted, but the Regents staff had not retained them in any form.

   To reflect this change, page 13, fourth paragraph, last line, now reads as follows: "From 1988 to Fall 1991, no reports have been required."

3. AHEC evaluation: LOEO stands by its statement that Ohio's AHEC program has not been evaluated for its impact or effectiveness. Rather, the documents referred to in the Regents staff's response provide an overall description of the AHEC program, report on strengths and weaknesses at individual sites, and describe plans for the future. These documents are not evaluations that determine AHEC's impact on the geographic distribution of health professionals.

5. Statutory requirement for competitive grants: The Regents staff response implies that the Regents had discretion as to whether or not to provide competitive grants in the AHEC program. The applicable law says:

   The Ohio Board of Regents shall provide incentive grants totaling not more than $250,000, through a competitive process, to regional centers for implementation of this strategic plan. [emphasis added]

OHIO
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October 10, 1991

Mr. Paul Marshall
Director
Legislative Office of Education Oversight
Concourse, Vern Riffe Center
77 South High St.
Columbus, Ohio 43266

Dear Mr. Marshall:

Enclosed is the Regents' response to LOEO's recent report on State Funding for Medical Education. I appreciate your offer to have our response included in the final report. This will provide interested readers of the LOEO report the benefit of the Regents' perspective on these issues also.

Some of the comments in our response reflect a fundamental difference in evaluation philosophies which I believe merits further examination.

Thank you for the opportunity to respond to this report.

Sincerely,

Elaine H. Hairston

Elaine H. Hairston
Chancellor

cc: The Honorable H. Cooper Snyder, Chair
Legislative Office of Education Oversight

THE BOARD OF REGENTS RESPONSE
TO THE LEGISLATIVE OFFICE OF EDUCATION OVERSIGHT
REPORT ON MEDICAL EDUCATION

October 11, 1991

SUMMARY

The Board of Regents welcomes the Legislative Office of Education Oversight's (LOEO) interest in medical education issues. Medical education, a significant element of higher education in Ohio, is extremely critical to the health and quality-of-life of the citizens of Ohio, and also plays a vital role in Ohio's economic well-being. It is also very complex.

Regents applaud LOEO's attempt to untangle some of the complexity of medical education, and we agree with the recommendation that financing issues warrant increased attention. Regents can also appreciate the difficulty of fully comprehending all of the germane issues regarding this complex area in a brief time frame. It is, therefore, particularly relevant that LOEO conclusions be understood in the context of Regents' perspective regarding medical education goals and our role with these initiatives.

It is important that several ***errors of fact or misleading implications be clarified*** immediately. These include:

1) The LOEO Report implies that Regents have not carefully fulfilled legislative directives or statutory responsibilities. We believe ***we have implemented these programs as the legislature intended and have consistently monitored and evaluated medical education in Ohio.***

2) The Report states that "no reporting is required for AHEC". This is not true. ***Annual reports are required for all of the targeted medical education initiatives***, as described below.

3) The Report states that there has been no Ohio evaluation of the AHEC program. ***AHEC has, in fact, benefitted from both a review by external evaluators and a strategic planning process by a widely representative group***, also described below.

4) The Report states that Regents do not assess or evaluate medical education. ***We constantly assess medical education and evaluate effectiveness, in the widest sense, and use multiple sources of accountability which we believe to be reasonably related to the purposes of such assessment and thus cost-effective.***

5) The Report implies that Regents did not follow legislative directives in the award of AHEC funds. These statements are taken out of context in that the directive was for strategic

planning for AHEC, which would be implemented through incentive grants "totally not more than $250,000". As detailed below, the Strategic Plan recommended that each regional program receive base funding to develop a local plan, based upon statewide goals and to maintain a minimum program. Then, the regional plans would be implemented the next year (FY 1991-92). It also recommended that additional funds be requested and competitively awarded to focus on current, critical, state health problems. It seems reasonable that regional plans be developed prior to program implementation. The important point is that *this is a multi-year process of planning, implementation, and evaluation. It is misleading to take activities out of this total context.*

GENERAL ISSUES

From Regents' perspective, several critical points regarding medical education and our role need to be clarified. These include:

Regents' Responsibilities and Role

We reject the implication (pages 2, 14) that Regents' statutory responsibilities for policy review and recommendation have not been carefully fulfilled. The suggestion that Regents should have challenged the validity of the General Assembly's intentions in funding these programs is difficult to understand. Though the statutory language was not detailed, *Regents understood these initiatives to be an expression of the General Assembly's concern for these issues (e.g. concern for quality care for Ohio's elderly). We have, therefore, viewed our role as one of relating these initiatives to the dynamic concerns of the state's system of higher education, providing leadership for policy development in concert with campus and community experts in these areas, and conscientiously monitoring effectiveness and accountability.*

The Effectiveness of Medical Education

Part of the discrepancy in interpreting Regents responsibilities with these initiatives may be due to the apparently different definitions of "evaluation of effectiveness" used by LOEO and Regents. From Regents perspective, effectiveness encompasses the outcomes produced, the quality of those outcomes, and the efficiency with which the outcomes are produced. Evaluation of effectiveness must be connected to the legislative values expressed-- what the program is attempting to achieve. Public policy aims and values are often not easily measured; there is usually some need for reasonable judgements in the face of ambiguity.

The LOEO Report seems to imply that effectiveness can be measured by looking narrowly at efficiency and that reporting is valid only if the information retrieved is easily quantifiable.

Regents acknowledge the convenience of this approach, but believe that it will often fail to inform about real world public goals, such as quality. For example, the report on medical education states that it will focus "on the purpose of funding, not the quality of programs". (page 4) When quality is the purpose, this approach will necessarily miss a large part of the picture.

It is Regents understanding that the legislative initiatives in medical education were primarily aimed at improving the quality of the medical education which all students receive through incentives which assist in curricular change. For example, the quality of family medicine/primary care education and experiences for all students is a concern at least as important as supply and distribution issues. It is important to note that *quality is clearly an educational responsibility* whereas distribution is a concern shared by other agencies of state government, such as the Department of Health which is fundamentally concerned with access to health care.

This is not to say that health care access issues have been ignored, but that the overall goals of the programs appear to be misinterpreted by LOEO. For example, we understand the goals of the family practice initiative to be 1) to improve the quality of education of all medical students in basic primary care, and 2) to use educational interventions as a way to affect supply and distribution. The base funding for each medical school is related to the first goal and the "incentive funds" (which are easily quantifiable) are related to the second. The Report's implication (page 15) that only half of the funds for family practice and primary care are allocated in an "accountable" manner does not take into account the quality goals of these initiatives. (The assumption that cooperation is inherently ineffective is also refutable.)

To summarize, any attempt to evaluate effectiveness needs to consider quality goals as well as easily quantifiable outcomes. Regents are willing to work with LOEO to better understand LOEO's approach and to find ways to articulate our understanding of program goals with LOEO's approach.

The Accountability of Medical Education:

Several of the **LOEO Reports**, including this one, *strongly imply that volume in reporting and frequency of evaluation are valuable in and of themselves. Regents do not agree with this view. There are very substantial costs to reporting and evaluation, both for the reporting organizations and for the monitoring and evaluating organizations. We believe it is important to require the submission of data only to the extent that it can and will be effectively used and only after consideration of the cost to the state of reviewing it.*

We also recognize that we are not provided the resources by the General Assembly to provide the type of program review that LOEO seems to believe ought to be a routine part of our activities. Consequently, on occasion we choose not to engage in activities that we believe would be useful because we have concluded that other activities are more important and warrant a prior claim to our resources. Therefore, we disagree with the tone of this report on two grounds.

First, we believe that while local institutions are clearly fallible, they are no more so than state agencies. The natural desire of state agencies to exert greater control over local activities and to require more detailed reporting from institutions in the field frequently adds nothing to the quality of service delivery. Burdensome reporting can, in fact, reduce quality by adding to administrative overhead and making it more difficult for local institutions to adapt to changing circumstances.

Second, even for the suggested evaluative activities for which we would agree there is benefit, it is clear that we do not have the resources to perform them and to do the other things required of us. While one might wish we could have done more, one cannot criticize us for not having done more without confronting the choices imposed upon us. It is not enough to say that more attention should have been spent on, for example, geriatric medicine. It is also necessary to identify the activities the Board did undertake that are deemed less important and which should have been sacrificed to make a more detailed review of geriatric medicine possible. ***We urge the LOEO staff to include it its reports information on the relative priorities for the new reporting and monitoring functions it recommends to the General Assembly.***

Accountability encompasses more than the generation of reports. It includes the responsiveness of the program implementors in addressing the goals of the program--the outcomes being produced and attention to quality and efficiency. Reporting and monitoring is one way of assessing effectiveness; another is including affected constituents in planning processes and in developing the outcomes or activities.

Costly duplication in reporting and monitoring can be avoided through thoughtful use of existing mechanisms for accountability such as national accreditation, scholarly and disciplinary peer review processes, etc. Regents make use of these mechanisms for medicine as well as for other disciplines. ***Some methods of accountability may focus upon quality assurances and others upon efficiency measures, but a balance of all aspects is necessary for assessing overall effectiveness.***

These distinctions are important in that the LOEO Report often seems to substitute efficiency for effectiveness and reporting for accountability. Efficiency and reporting are critical components but not sufficient in themselves. When they are viewed within this larger context, it can be more easily seen that reporting itself is costly and thus must be connected to a purpose or it may create inefficiencies. It should be clear what decisions will be made as a result of having the information or the purposes that will be served. The Report does not clearly specify exactly what additional information is being sought, the purposes for which this information is required, and how the costs of this data collecting would be justified.

It is also stated (pages 2, 4, 13, etc) that little information currently is collected by Regents from the medical schools. At least eleven different reports must be submitted annually from all colleges and universities including student and faculty data, cost and fee data, audited financial reports, space utilization, etc. Contrary to what is stated in the Report, the medical schools must also submit additional reports annually related to each of the medical line items.

General Purpose Subsidies for Medical Education

The effectiveness of medical education may be assessed by the outcomes--the medical graduates produced, the quality of the education they have received, and the cost efficiency of the activities which produced those graduates. These will be briefly discussed.

Efficiency

The Report cogently captures the complexity of medical education. The joint production of medical education activities (i.e. one activity simultaneously may contribute to patient care, undergraduate medical education and graduate education) makes cost accounting complex. As noted in the Report, Regents have been seeking resources for several years with which to gain a better understanding of the costs of medical education. The medical schools have also indicated their willingness to cooperate with Regents in the development of a statewide, standardized cost accounting system.

The development of any such accounting system does not preclude the necessity for subjective, but rational, judgements. Judgements will need to be made regarding the relative allocation of costs to various jointly produced products for a wide range of activities. While it is generally agreed that this is possible, it is also very complex because; 1) it must include different outcome goals related to the very different missions of Ohio

medical schools, 2) it must incorporate their very different structures, and 3) quality must also be considered.

While a standardized, statewide cost accounting system has not existed in Ohio or elsewhere, medical schools have had significant incentives to be efficient. Payments for patient care, a significant source of funding for medical schools, has steadily decreased allowable costs for educational expenses. As noted by the LOEO Report, ***medical school programs do not rely solely upon state subsidy and tuition revenue.*** A recent report of the American Association of Medical Colleges[1] reports that, on average, U.S. public medical schools received only about 25% of their revenue from government subsidy (federal, state, and local) and about 3% from fees and tuition. Practice plans contributed about 28% and research grants and contracts about 23%. Private U.S. medical schools, on average, received only about 2% of their revenues from government subsidy, and about 6% from tuition and fees. Contributions from practice plans were about 32% and research grants and contracts about 28%. Hospitals, indirect costs, and endowments and gifts were other sources of revenue for both public and private schools.

Government support for public medical schools in the U.S. increased, on average, about 14% from academic year 1988-89 to 1989-90. Increases of about 14%, 20%, 17%, and 16% were experienced for each of the four years prior. Since Ohio's support for medical schools has been held constant or increased only slightly, **it is not likely that a study of medical education costs will find that Ohio schools are oversubsidized by the state. In fact, the opposite appears probable.**

In summary, Ohio medical schools have had significant incentives to be cost-conscious. Other sources of revenue, related to health services, have been enormously important and are increasing in significance.

Quality

Societal expectations for physicians to be extremely knowledgeable and skilled are high and are intensifying by rapid technological advancements. Medical schools have given much attention to continual quality improvement through curricular revisions that incorporate the most recent research and technology and new modes of teaching and learning.

The quality of medical education at the schools with strong missions in research and advancement of knowledge in medicine,

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[1]Jolly, Paul PhD, Leanne Jolin, Jack Y. Krakower, PhD, and Robert Beran, PhD, "AAMC Papers, Financing Medical Education, 1989-90", Academic Medicine, September, 1991

nursing and allied health is necessarily judged differently than the quality of medical education at those schools with missions aimed at producing primary care physicians. ***National standing and reputation (which is the hard-to-measure quality which allows schools to attract top faculty and students, as well as research funding) cannot be easily measured by Regents through quantitative reporting. But such quality is extremely important to Ohio, both from the national reputation perspective but also from a state economic perspective.***

Health care is one of the few flourishing service industries and has great potential for economic growth for Ohio. Attracting external research funding, an increasingly important source of revenue for medical schools, to Ohio colleges and universities is critical to their ability to provide high quality undergraduate and graduate education. An educated workforce and advances in basic science and technology are critical for economic development. Quality is a necessary prerequisite for national competitiveness in research.

These quality considerations should not be overlooked. For example, the Case Western Reserve University medical school support is not to increase their enrollment, as stated in the Report, but to allow Ohio students to gain a competitive advantage in admission. This highly competitive institution reported that for a recently admitted class, Ohio applicants had a 1 in 5.5 chance of acceptance, while each of the nearly 4000 out-of-state applicants had only a 1 in 37.7 chance of being admitted. ***Ohio has an important economic stake in nurturing the excellence and national competitiveness of its best institutions as well as in assuring that Ohio's best students will stay in Ohio.***

<u>Responsiveness to Societal Needs - Medical Education Outcomes</u>

In addition to focusing upon quality, medical education has also needed to change outcomes in response to societal expectations--the type of knowledge and skills a well-prepared physician is expected to have, as well as the number and type of physicians needed. The growing emphases on primary care and geriatrics are good examples of such changing expectations.

Changing demographics of the population (the fastest growing segment of the population is 85 years and older) mean that all physicians will have an increasing percentage of patients who are elderly. To meet this need, medical education curricular content (didactic and experiential training), regarding primary functional assessment and the presentation of disorders and their treatment in the elderly, has been increased.

Despite financial disincentives created by the way health services are paid, students have begun to receive more training

in ambulatory care facilities, for example, nursing homes, which is more costly than training in the tertiary university hospital. If cost alone were the driving force, these changes would not be rational. But quality considerations, which include responsiveness to societal expectations, must receive critical attention.

Targeted Programs

These points, regarding effectiveness and accountability, are relevant for the targeted programs as well. For example, the purpose of the family practice program is to provide quality education in family medicine to all medical students so that they have this knowledge no matter what their choice of specialty. (e.g. specialists need to understand the role of the family physician in coordinating care and understand the constraints under which this may occur in a rural area, for instance.) Similarly, the geriatric's program's goal is to enhance the quality of education of all medical students by continual quality improvements of the curriculum and faculty training.

All medical students need to receive education and training experiences in family medicine and geriatrics for comprehensive, high quality preparation no matter what their future specialty choice. As noted earlier, financial disincentives in health care financing make this more costly to provide than tertiary hospital-based specialty training, which is subsidized through patient care revenue. ***Targeted funding has enabled programs in family medicine and geriatrics to develop quality educational experiences and to compete with other disciplinary specialties (e.g. surgery, orthopedics) in attracting the best and brightest faculty and students.*** This is not an activity done once and accomplished, but an issue which requires continual attention. This is a critical issue if societal needs are to be met.

It was stated in the Report that the family practice, primary care and Area Health Education Centers (AHEC) programs were "designed to influence the supply and distribution of primary care physicians." While this is correct, it is not the only reason. The quality of care provided is another important aspect upon which these programs have always been focused.

The Need for Decentralization and Flexibility

With complex social problems, which change over time, remedies cannot be clearly known in advance. Providing broad policy direction and allowing maximum flexibility at the local level, encourages programs to customize activities to capitalize upon existing resources and networks and to experiment with innovative approaches. This decentralized approach does not abandon accountability. It defines it more broadly to include local input and peer influences.

For example, the long-time problem of access to care in rural areas has changed over the last decade and disincentives to locate for practice in an underserved area will differ from locality to locality. Disincentives may include (depending upon the exact location) the health care provider's perception of his or her ability to make a living, the existence of a local hospital or other technological support, the existence of other health providers (which can hugely affect demands upon the provider), perceptions regarding the social and cultural environment of the area, geographic and economic factors, the educational system available to the health provider's children and career opportunities for his or her spouse, and family ties.

Any single intervention approach (such as the National Health Service Corps, which provides scholarship monies in return for service in an underserved area) has not worked to solve health provider distribution problems because the reasons for the problem are multiple. ***Various and multiple intervention strategies, targeted toward the specific needs of a locality, are necessary. The scholarship approach, suggested by the Report, would be an excellent augmentation to recruitment efforts, training in rural sites, and supportive networks which reduce the isolation of rural health providers.***

Responsiveness requires the continual monitoring of changes in societal expectations with programmatic adjustments made to address these needs. Medical education has responded to changing needs generally, but the targeted program most geared toward such flexibility is the AHEC program.

AHEC's concern with the quality, availability and access to care for all populations in the state go beyond the narrow focus of physician distribution. The availability of physicians, nurses and allied health personnel and the quality of health care provided have been traditional concerns which are continually refocused into new efforts as conditions change. For example, concerns regarding minority health and access to care at the national and state level have been incorporated into AHEC programs through minority recruitment programs in medicine and nursing, community health education outreach programs where students learn patient education by teaching inner city school children, and training experiences in urban health clinics. Other examples of changing societal needs which have been addressed through AHEC programs include the problems of AIDS, health care for the homeless, child abuse, cancer, etc. In other words, the goals of the program are not limited to physician distribution concerns, and are also not static, but dynamic in response to the changing health care concerns of Ohio. This allows for effective and efficient use of limited state funding.

<u>Accountability and Reporting Requirements</u>

It was erroneously stated in the Report that not all the "line item programs" have annual reporting and accountability requirements. They do. But it should be noted again that reporting for its own sake is not cost-effective. Reporting must be linked to particular purposes and goals. ***When required reports no longer serve a purpose, it is cost-effective to discontinue or change the requirements. Such changes in reporting requirements have occurred for the clinical subsidies and also two of the targeted programs, AHEC and Geriatrics.***

Evaluation and Planning for AHEC

The AHEC program was evaluated by the state, in 1988, as it made a transition from being primarily federally funded to primarily state supported. The first recommendation from this evaluation was that a state strategic plan be developed to provide future policy direction. A Strategic Plan for AHEC was developed in the last biennium by a broadly representative group including; the Department of Health, the Commission on Minority Health, community rural physicians, preceptors and hospital administrators, and health care educators and providers from many health disciplines. This state level strategic plan now serves as a policy guide for regional implementation plans developed this year at the local level. These local plans must be completed this fall and must contain measurable objectives. They will be evaluated for content and the degree of multi-disciplinary and community participation in the plan development process. Evaluation of each region's achievement of their own objectives will begin next year.

The Strategic Plan for AHEC highlights the necessity of flexibility in focusing upon the specific needs of a particular region and in the activities considered to be most effective in addressing these needs. The Report implies that Regents did not follow legislative directives in the award of AHEC funds. These statements are taken out of context in that the directive was for strategic planning for AHEC, which would be implemented through incentive grants "totally *not more* than $250,000". The AHEC Strategic Planning Committee recommended (page 12) that during a transition year, $1,854,000 be allocated equally to each regional program for the development of local plans based upon the statewide policy goals. Incentive grants totally $100,000 were recommended for implementation of the plans. Being unsuccessful in obtaining full funding for both parts at once, it seemed reasonable to Regents to get the local plans developed first and then subsequently get them implemented. ***The Strategic Plan calls for a multi-year process, statewide policy directions, regional program objectives, annual reporting, and evaluation.*** This multi-year process is being implemented and it is misleading to take specific activities out of the overall context.

Planning for Geriatrics

The Geriatrics Program also has the benefits of guidance from recently developed statewide goals. At the inception of the program, a point system was devised to create incentives for schools to pursue specific developmental activities. As the programs matured, all schools eventually achieved these objectives consistently.

In recognition of this consistency of achievement, it was decided that new goals should be developed to challenge the geriatric programs to move toward further growth and achievement. A committee of individuals, representing all of the medical schools, studied the previous achievements of the program, current needs and future directions, and developed a list of goals with measurable objectives, and with a scoring mechanism.

All programs must report, in a standardized format, annually. All schools which achieve the minimum standards as articulated in statute (3333.111) are eligible for full base funding. In addition, each school must demonstrate how it is going beyond these minimum standards toward enhanced programming.

Collaboration with other programs or development of strategic areas which can become statewide resources is encouraged to maximize cost effectiveness. In this case, competition which induces all seven medical schools to develop all areas of programming would create much costly duplication. Alternately, encouraging cooperation among the schools can lead to greater sharing of state resources and efficiency in use of limited state funds.

In summary, the effectiveness of these targeted programs has been viewed by Regents from the broad perspective of; 1) outcome goals which need to be responsive to changing Ohio needs, 2) planning processes which include the multiple perspectives of affected constituents, 3) quality considerations, and 4) efficient use of resources through collaboration among medical schools, other disciplines, community organizations, and local health providers. Reporting requirements have been geared towards these ends. Monitoring has taken advantage of other accountability mechanisms already in place and activities such as peer review and decentralized planning, towards cost-effective accountability.

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GEORGE V. VOINOVICH
Governor

October 10, 1991

Mr. Paul Marshall
Director
Legislative Office of Education Oversight
Vern Riffe Center
77 S. High St., Concourse
Columbus, Ohio 43266

Dear Mr. Marshall:

Thank you for the opportunity to review the final draft of the report on State Funding for Medical Education. The attached page identifies two minor corrections to the report and offers a suggestion regarding references. If you have any questions, please call Susan Ewing-Ramsay at 644-8508.

The Ohio Department of Health has been and is increasingly concerned about the availability of primary care services throughout Ohio, and particularly in rural and urban areas. For this reason we believe it is critically important that there be a coordinated and well-understood policy regarding physician supply, medical school enrollment and education and residency training policies. We believe it is difficult to attribute outcomes in physician retention and recruitment to any one program or activity, but endorse more systematic and coordinated policy and program development, monitoring and evaluation.

This report is a sound beginning for such an effort and its recommendations should be acted upon.

Sincerely,

Peter Somani

Peter Somani, M.D.
Acting Director of Health

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CORRECTIONS;

* - p. 23, 1st paragraph under "Supply ... Ohio" - add "general practice" between family practice and general internal medicine.

* - p.25, 2nd paragraph under "Adequacy of Supply" - suggest the paragraph read as follows:

  According to the Ohio Department of Health, a generally accepted ratio of population to practicing primary care physicians is 2000:1. In 1990, Ohio's ratio was 1172:1. This figure may be inflated, however, because it includes all licensed primary care physicians who report their status as active. They may not be practicing full time and, in fact, some may not be practicing at all. In addition, this ... county.

Suggestion:

- Provide complete references for reports, documents, phone conversations, etc., mentioned throughout the report.

* LOEO note: The suggested changes had been made in the report.